Oracle Primavera Cloud Workflow Design Guide

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Primary Author: Oracle Corporation

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About This Guide

This guide covers workflow designs, workflow configurations, and forms. It explains basic concepts, fields used in workflows and forms, and the relationships between workflows, forms, and the objects they run against in Oracle Primavera Cloud.

Workflows and Forms Overview

Workflows and Forms Overview Video

Workflows automate complicated business processes, like submitting and reviewing project proposals. Forms help users view and provide information about objects that workflows run against. They can also be used to replace some default pages and forms in the application. Use the Workflows and Forms app to create and maintain workflows and forms.

Workflows

Workflows use predefined sequences of steps and tasks to route different kinds of information among different kinds of workers. Organizations use workflows to manage processes that involve many people, many steps, or steps that need to be completed in a specific order.

In Primavera Cloud, workflows can be configured to manage these objects:

- Budgets
- Budget changes
- Budget transfers
- Changes
- Change orders
- Commitments
- Contracts
- Ideas
- Portfolios
- Potential Change Orders
- Projects
- Proposed Project Risks
- Submittals

After a workflow has been created, it can start automatically or manually. Workflows can be set to start automatically when some action occurs with the objects they run against. For example, a project workflow can be set to start automatically when a project proposal is created. Managers and administrators can also start workflows on the Start Workflows page.

Forms

Forms are used to collect information from users and to present information to users.

In Primavera Cloud, forms can be used two ways:

- 1) They can be added to workflow tasks, enabling workflow task performers to view and provide information about objects that workflows run against.
- 2) They can be used to replace these default pages and forms in the application:
 - ▶ **Project Details Form**: This page appears when you select **② Summary & Settings** in a project and then select the **Details** page.
 - Add Project Proposal form: This form appears when a user creates a project proposal.
 - Portfolio Details Form: This page appears when you select Summary & Settings in a portfolio and then select the Details page.
 - **Propose Risk (System)**: This form appears when users propose risks in the Risk app.
 - Add Idea Form (System): This form appears when users add ideas to a workspace.
 - Edit Idea Form (System): This form appears when users modify ideas from the Idea List page.

Workflow Designs and Workflow Configurations - What's the Difference?

If you've been exploring the Workflows and Forms app, then you've probably noticed that there's one page for managing workflow designs and another for workflow configurations. Every workflow has one of each.

Workflow designs are like flowcharts. They define steps, the tasks that steps contain, and the relationships between steps and tasks. You create workflow designs in the Workflow Design Editor.

Workflow configurations are like collections of settings for workflow designs. They specify detailed properties about steps and tasks. You create workflow configurations with the Workflow Configuration Wizard.

Say you want to create a workflow that shows a user a form with project information. First, you would create a workflow design that has a form task. Then, you would create a corresponding workflow configuration that specifies which form that task uses.

Dividing workflows into designs and configurations this way makes it easier to change the details of a workflow without duplicating its entire design. Your organization may have ten processes that route steps and tasks among a group of users in ten different ways. Instead of creating 100 different workflows—one for each process—you can create one workflow design and ten configurations for it.

Get Started with Workflows and Forms

Workflows automate complicated business processes, like submitting and reviewing project proposals. Forms help users view and provide information about objects that workflows run against. Forms can also be used to replace some default pages in the app.

Before you start creating workflows and forms, you should be familiar with the processes that you want to modify and the workspaces in which they occur. Within any workspace, these objects can be managed with workflows:

Budgets

- Budget changes
- Budget transfers
- Changes
- Change orders
- Commitments
- Contracts
- Ideas
- Potential Change Orders
- Projects
- Project Risks
- Submittals

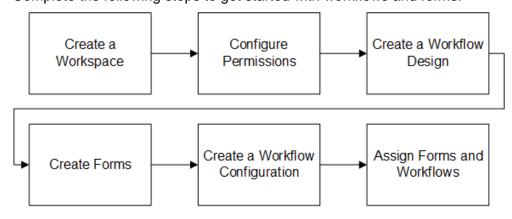
What does it mean for an object to be managed with a workflow? It means that, for any of these objects, you can create a workflow that automatically updates field values, displays information, and sends tasks to users with specific roles associated with these objects. For example, *projects* support workflows. This means that you can create a workflow that changes the Status value of a project based on certain conditions and sends tasks to users with specific roles, like the owner, on a project.

In Primavera Cloud, there are three ways a workflow can start: A user can **select a workflow** and start it (see "Start a Workflow" on page 18) on the Start Workflow page. A user can **set** the workflow to run automatically (see "Custom Workflow Assignments" on page 80) when a user performs a certain action. A user can **set** a workflow to run automatically in response to an alert or threshold (see "Set a Workflow to Start When a Project Alert is Initiated or a Portfolio Threshold is Reached" on page 75).

Where do forms come in? Forms can be used two ways. They can be used to **present and collect data during workflow steps** (see "**Add a Form Task to a Task Step**" on page 24), and they can be used to **replace some default pages in the application** (see "**Custom Form Assignments**" on page 85).

If you want to use a form to present and collect data during workflow steps, it's best to create workflow designs, forms, and workflow configurations, in that order. After that, you can assign custom workflows and forms to their respective processes and objects.

Complete the following steps to get started with workflows and forms:



Create a Workspace

Workspaces provide the hierarchical structure for your organization's projects, portfolios, programs, and ideas. Before you can use the Workflows and Forms app, you should identify or create the workspace to contain your organization's data.

Each workflow or form is created in a workspace and is used to manage objects in that workspace. Before you can make a workflow or a form, you should determine the workspace where it belongs or create a new workspace.

Configure Permissions

Security permissions determine what users can do with objects in Primavera Cloud. **Security permissions for workflows and forms** (on page 13) determine what users can do with workflows and forms, specifically.

With the global Administer Workflow Instances permission, you can monitor all workflow instances, even those that you are not assigned as a workflow manager.

Workspace permissions determine your ability to start workflows and add, edit, delete, and view workflow designs, workflow configurations, and forms.

Object-level permissions, such as project permissions or idea permissions, influence what you can do with workflows and forms for specific objects. These permissions override all other permissions. For example, if you have the permissions required to edit a project proposal, then you also have the ability to specify which workflow the system should use for the proposal, regardless of whether you have any other workflows or forms privileges.

Create a Workflow Design

Each workflow has two parts: a **workflow design** (see "**Workflow Design Overview**" on page 20) and a **workflow configuration** (see "**Working With the Workflow Configuration Wizard**" on page 55).

Workflow designs are like flowcharts. They define steps, the tasks that steps contain, and the relationships between steps and tasks. After you have thought about the process that you want to automate, you can *create a workflow design* (on page 22).

Create Forms

You can *create a form* (on page 36) as soon as you know what it should do. Forms can be used two ways. They can be used to *present and collect data during workflow steps* (see "*Add a Form Task to a Task Step*" on page 24), or they can be used to *replace some default pages in the application* (see "*Custom Form Assignments*" on page 85).

Create a Workflow Configuration

After you have created a workflow design and all of the forms it may include, you can *create a workflow configuration* (on page 56). Workflow configurations store the detailed settings that make workflow designs work.

After you have set up and published a workflow configuration, you have a fully functional workflow, which you can either start on the Start Workflow page or set to run automatically when certain actions occur with certain objects.

After you have published a workflow configuration, you can **start it on the Start Workflow page** (see "**Start a Workflow**" on page 18).

Assign Forms and Workflows

With your workflows and forms set up, you can finally tell the system *which forms to use instead of default pages* (see "*Custom Form Assignments*" on page 85), and *which workflows to run when certain actions occur* (see "*Custom Workflow Assignments*" on page 80).

Search for a Workflow Design, Workflow Configuration, or Form

Running a search filters objects in a list by your search term. You can search for forms, workflow designs, workflow configurations, and full workflows on these pages:

- Start Workflow
- Monitor Workflows
- Form Design
- Workflow Design
- Workflow Configuration

To search for these objects:

- 1) Navigate to one of the pages in the preceding list.
- 2) Expand the **Q Search** bar above the list, and then enter your search text.

Tips

To remove the search filter from the list, select X Clear.

Security Permissions for Workflows and Forms

Your security permissions determine what you can do with workflows and forms. Your workspace administrators, application administrators, and portfolio managers define these permissions.

In the Workflows and Forms app, on the Monitor Workflows page, you can always view running workflows that you are assigned as a workflow manager. But to monitor all workflow instances, even those that you are not assigned as a workflow manager, you must have the global **Administer Workflow Instances** permission.

Workspace permissions determine your ability to start workflows and add, edit, delete, and view workflow designs, workflow configurations, and forms. To add, edit, delete, and view workflow designs, workflow configurations, and forms in a workspace, you must have the corresponding **Workflow Designs**, **Workflow Configurations**, and **Forms** security privileges in that workspace.

To manually start workflows on the Start Workflow page in a workspace, you must have the **Start Workflows** security privilege in that workspace.

You can also start workflows by performing certain actions on other objects besides the workflows and forms. Privileges to start workflows by performing these actions override all other privileges. For example, with the **Edit Project Budget** privilege, you can initiate a budget approval workflow on the Budget log page, regardless of whether you have any other workflows or forms privileges.

When assigning context objects to workflow and form elements in the workflow and form editors, you can only select objects that you have access to.

Monitor Workflows

When a workflow starts, a *workflow instance* is created. The Monitor Workflows page is where you manage all running, stopped, failed, and archived workflow instances.

Monitor Workflows Overview

If you are assigned to a workflow as its manager, you can view its running instances on the Monitor Workflows page. To view all running workflows, you must have the global privilege to Administer Workflow Instances.

Use the Monitor Workflows page to:

- View the names and details of running workflow instances.
- Stop running workflow instances, if necessary.
- View workflow logs.
- Archive or delete completed, stopped, or failed workflow instances.
- View workflow diagrams associated with running workflows.

Monitor a Workflow Instance

Monitor progress and details about active and archived workflow instances.

To monitor a workflow instance:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Monitor Workflows.

Note: By default, the Current Workspace filter is on and the Monitor Workflows page only displays the workflows of the selected workspace.

- 3) On the **Monitor Workflows** page, select the **Current** or **Archived** tab.
- 4) On the Current or Archived tab, view basic information about each workflow instance. Values in the Status column indicate the progress of each workflow instance. Possible statuses include:
 - In Progress: The workflow is running and waiting for a step to be completed.

- Overdue: The workflow is running and has not been completed by its specified due date.
- **Failed**: An error has caused the workflow instance to stop.
- **Stopped**: An authorized user manually stopped the workflow.
- **Completed**: All workflow steps have been completed.

The tiles at the top of the **Current** and **Archived** tabs show totals for all workflow statuses currently displayed in the table.

- 5) Select the **Filters** icon to specify which workflows to view in the table. You can filter by workflow status and whether you want to view workflows only in the current Workspace.
- 6) Select the **Settings** icon to specify which columns to display in the table, as well as reorder displayed columns.
- 7) Select a row to view more information about a workflow instance in the **Details** panel.

Tips

- You can also access the Monitor Workflows page on the User menu. In the header, select your username, and then select **Monitor Workflows**.
- Select the **Download** link at the bottom of the page to export the contents of the current table to Microsoft Excel.

Stop a Workflow Instance

Stop a workflow instance to terminate all active tasks associated with it. You can only stop workflow instances that have a status of **In Progress** or **Overdue**.

Note: You cannot resume a workflow instance after you have stopped it.

To stop a workflow instance:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Monitor Workflows.
- 3) On the **Monitor Workflows** page, select the **Current** tab.
- 4) On the **Current** tab, select a running workflow instance.
- 5) In the workflow instance **Details** panel, select **Stop**.

Archive a Workflow Instance

On the Monitor Workflows page, archive a completed, stopped, or failed workflow instance to remove it from the Current workflow list without removing it from the database. After you archive a workflow instance, you can review it on the Archived tab.

Note: You cannot return an archived workflow to the Current tab.

To archive a workflow:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **GWorkflows** and Forms, and select Monitor Workflows.

- 3) On the Monitor Workflows page, select the Current tab.
- 4) On the Current tab, select a workflow instance that is not running.
- 5) In the workflow instance **Details** panel, select **Archive**.

Delete a Workflow Instance

You can only delete archived workflow instances.

Note: When you delete a workflow instance, it is completely removed from the system.

To delete a workflow instance:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Monitor Workflows.
- 3) On the **Monitor Workflows** page, select the **Archived** tab.
- 4) On the **Archived** tab, select a workflow instance.
- 5) In the workflow instance **Details** panel, select **Delete**.

View a Workflow Log

View a detailed sequence of all recorded events related to a workflow instance.

To view a workflow log:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Monitor Workflows.
- 3) On the **Monitor Workflows** page, select the **Current** or **Archived** tab.
- 4) On the **Current** or **Archived** tab, select a workflow instance.

In the workflow instance **Details** panel, select **View Log**.

On the log page:

- In the event list, view information about completed and pending workflow events.
- In the **Description** area, view additional information about the selected workflow event.

View Log Page Fields

Summary Fields

These fields appear in the main table on the View Log dialog box.

#

The position of the event in the recorded workflow sequence.

Event

A brief description of the workflow event.

Started Date

The date and time the workflow event started.

Completed Date

The date and time the workflow event was completed.

Status

The status of the workflow event.

Description Tab

Not all of these fields will appear on the Description tab at once. Which fields are visible depends on the kind of workflow event you are viewing.

Instance Name

The name of the corresponding workflow instance.

Started By

If the workflow event was started by a user, this field shows the name of that user. If the workflow event was started by the system, this field is blank.

Step

The workflow step associated with the workflow event.

Context

The object that the workflow or step is running against or ran against.

Tasks Completed

The number of tasks in the selected step that have already been completed.

Task Details Tab

This tab only appears if you are viewing an event associated with a workflow task.

Task Name

The name of the workflow task. You can select the task name to view information about users' progress on the task.

Task Type

The type of task that the row describes.

Form Name

The name of the form associated with the task.

Form Version

The version of the form associated with the task.

Context

The object that the task is running against or ran against.

Completion Policy

Specifies how many performers from the selected user group must complete the task. This field has three possible values:

Any: Any assigned performer can complete the task to advance the workflow.

At Least Half: At least half of the assigned performers must complete the task to advance the workflow.

All: All assigned performers must complete the task to advance the workflow.

Status

The status of the workflow task.

Completed: Task was completed with no errors.

Failed: Task failed to perform.

Completed with Errors: Task was completed with errors; however, the workflow

progressed.

Skipped: Task was not performed; however, the workflow progressed.

Pending: Task has a user action that must be completed in order to progress workflow.

View the Running Task Details

On the Monitor Workflows page, you can view details about running workflow tasks.

To view running task details:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Monitor Workflows.
- 3) On the **Current** tab, select a running workflow instance to view the details in the **Details** panel.

Start Workflow

Some workflows can start automatically when certain actions occur or when they are embedded in other workflows, but other workflows can be started manually.

If you have the workspace-level Start Workflows privilege, you can start project and portfolio workflows manually on the Start Workflow page.

You cannot manually start risk or submittal workflows. A risk workflow can only be started if it has been assigned as the risk proposal workflow at the workspace level. A submittal workflow can only be started if it has been chosen to replace the default submittal workflow at the workspace level.

Only the latest versions of published workflows can be started.

Start a Workflow

Start a Workflow Video

If you have the Start Workflows privilege, you can start published workflows on the Start Workflow page.

To start a workflow:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **GWorkflows and Forms**, and select **Start Workflow**.
- 3) On the **Start Workflow** page, select a workflow row.
 - The **Context Type** value of the workflow determines which objects it can run against. For example, Project workflows can run against projects or project proposals.
 - You cannot manually start risk or submittal workflows.
- 4) Select Start.
- 5) (Optional) In the **Start Workflow** dialog box, in the **Instance Name** field, rename the workflow instance.
 - The name of the workflow instance is the name that will represent the running workflow on the Monitor Workflows page.
- 6) Specify the object that you want the workflow to run against.
 - The field that you use to do this corresponds to the context of the workflow. For example, for project workflows, you can use the **Project** or **Project ID** field to find a project.
 - Whether or not this step is necessary depends on how the workflow was set up in the Workflow Configuration Wizard. If a workflow was given a specific context object there, then you probably don't have to specify a context object here. If you are not sure, then review the workflow configuration to determine whether the workflow or its tasks will be automatically assigned to specific objects when it runs.
 - If you are running a portfolio planning period workflow, you may also select the scenario that you want the workflow to run against in the **Scenario** field.
- 7) (Optional) In the **Duration** area, specify the amount of time the workflow will have to be fully completed.

Or

(Also optional) In the **Due Date** field, enter the date by which the workflow must be fully completed.

If the workflow is not completed by its Due Date, then the system notifies the workflow manager and sets the workflow status to **Overdue** on the Monitor Workflows page.

8) Select **Start**.

Tips

- On the Start Workflow page, select the name of a workflow to view workflow configuration information, as long as you have the required security privileges. To view the workflow diagram, select Show Diagram on the Configure Workflow page.
- In addition to being initiated manually on the Start Workflow page, workflows can be initiated automatically when project proposals are created or when budget planners initiate review, share, or approve actions during the budget planning process. Similarly, workflows can be chosen to replace some of the system's default workflows.

Workflow Design

Use this page to add, duplicate, and delete workflow designs. Here you can also view summary information about workflow designs, like the number of steps they contain.

Configure View Settings (on page 118)

Workflow Design Overview

Workflow designs broadly define the processes that workflows represent. You can view summary information about workflow designs, like the number of steps they contain, on the Workflow Design page. You can create and edit workflow designs with the Workflow Design Editor.

Working With the Workflow Design Editor

Workflow Design Video

With the Workflow Design Editor, you can create and edit workflow tasks, steps, and relationships between steps. To add, edit, delete, or view workflow designs in a workspace, you must have the corresponding Workflows and Forms security privileges in that workspace.

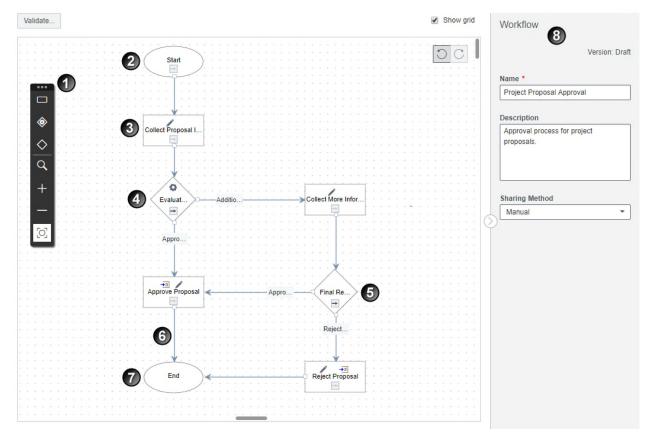


Table of Screen Highlights

Item	Description
1	Workflow Toolbar : On the Workflow toolbar, you can select options to add task steps, manual decision steps, and automatic decision steps; validate workflows designs; and use zoom controls to get a better view of your workflow design.
2	Start Step: The default first step of every workflow.
3	Task Step : Task steps contain tasks that are performed by users or the system. There are five kinds of tasks that you can add to a task step:
	Form Task: Requires the assigned performer or performers to complete or review a form created with the Form Editor.
	▶ Update Field Task: Automatically changes the value of a field in the object the step runs against to a specified value.
	▶ Sub-workflow Task : Initiates a separate workflow that runs synchronously or asynchronously with the host workflow.
	▶ Geresh Portfolio Refresh Task: Refreshes the portfolio if a change is made to a project that affects a portfolio.
	Service Task: Initiates a service, such as synchronization, to perform automatically during runtime.
	While multiple steps can directly precede a task step, only one step can directly follow a task step.
4	Automatic Decision Step: Automatic decision steps enable you to set up to five possible exit options from which the system automatically chooses based on the value of a specified field. An automatic decision step can include one automatic decision task. An automatic decision task enables you to set the field and values that the system will use to determine the subsequent path of the workflow.
5	Manual Decision Step: A manual decision step enables you to define a decision question and up to five possible answers from which a user chooses during a manual decision task to determine the subsequent path of the workflow. The path of the workflow is only affected by the response of the performer to the decision question, but you can add a form to a manual decision task. This is useful if the performer must view or provide specific information before making the decision.
6	Connector Line: Connector lines define relationships between steps. Connector lines that start at manual or automatic decision steps are associated with exit options from which a user or the system chooses.
7	End Step: The default final step of every workflow.
8	Workflow area : In the workflow area, you can edit properties of the entire workflow. When you select a step, the Workflow Area is replaced with details for that step.

Workflow Design Editor

Create and edit workflow steps, tasks, and relationships between steps with the Workflow Design Editor.

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Add an Update Field Task to a Task Step (on page 25)

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Workflow Settings Fields (on page 59)

Task Step Options Fields (on page 60)

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Create a Workflow Design

To create a workflow design:

- 1) Add a New Workflow Design (on page 22)
- 2) Add a Task Step (on page 23)
 - a. Add a Form Task to a Task Step (on page 24)
 - b. Add a Sub-workflow Task to a Task Step (on page 25)
 - c. Add an Update Field Task to a Task Step (on page 25)
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 - e. Add a Service Task to a Task Step (on page 27)
- 3) Add a Manual Decision Step (on page 27)
- 4) Add an Automatic Decision Step (on page 28)
- 5) **Delete a Workflow Step or a Connector Line** (on page 29)
- 6) Validate a Workflow Design (on page 30)
- 7) Publish a Workflow Design (on page 30)

Add a New Workflow Design

You can add a new workflow design with the Workflow Design Editor. After that, you can add steps, tasks, and relationships between steps.

To add a new workflow design:

1) In the object selector, select a workspace.

- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the **Workflow Design** page, select **+ Add** to open a new workflow in the Workflow Design Editor.
- 4) In the **Workflow** area, enter the **Name** of the workflow and a **Description** of the workflow.
- 5) In the **Sharing Method** list, specify how the data is shared between parent and child workspaces:
 - **Manual**: The data can be pulled down by child workspaces individually, using the **Assign** button in each child workspace. This is the default option.
 - **Automatic**: The data is pushed down to child workspaces automatically.
- 6) Select Save.

Related Video Tips

Sharing Workflows and Forms Video

Workflow Fields

Name

The name that represents the workflow design on the Workflow Design page. Design names must be unique.

Description

Provides background information on the workflow design or clarifies its purpose.

Sharing Method

Specifies how the workflow design is accessible in child workspaces.

Manual: The workflow design can be shared with child workspaces individually, using the **Assign** control in child workspaces.

Automatic: The workflow design is accessible in all child workspaces.

Add a Task Step

The most basic step in a workflow design is the task step. Each task step contains one or more tasks. There are five kinds of tasks you can add to a task step:

- **Form Task**: Presents select users with a form, which they can use to view or provide information about an object.
- ▶ **Sub-workflow Task**: Runs a separate workflow, either alongside or in sequence with the host workflow.
- ▶ **Update Field Task**: Has the system update a field in an object.
- Portfolio Refresh Task: Refreshes the portfolio if a change is made to a project that affects a portfolio.
- **Service Task**: Initiates a service, such as recalculate costs, run report, or synchronization, to perform automatically during runtime.

Multiple workflow paths can lead to a task step, but only one path can come from a task step.

To add a task step to a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the Workflow Design page, select a workflow design.
- 4) On the Workflow Design toolbar, select the Add a task step icon and drag it onto the workflow design canvas.
- 5) Use connector lines to define the position of the new step with respect to other steps. To add a connector line between two steps, select **Draw connector line** on the step where you want the connector line to begin, then select the step where you want the connector line to end.
- 6) Select the new step.
- 7) In the **Step** area, enter a **Name** and **Description** for the step.
- 8) Select Save.

Task Step Fields

Name

A unique, meaningful name that helps users distinguish the step from other steps.

Description

A summary that helps workflow task performers understand the purpose of the step and how to complete it.

Add a Form Task to a Task Step

Form tasks have performers view or provide information. In both cases, they use forms created in the Form Editor.

To add a form task to a task step:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select a task step.
- 5) In the **Step** area, select + **Add** \vee , and then select **Form Task**.
- 6) In the Form Task Details dialog box, enter a Name and Instructions for the task.
- 7) Select **OK**.
- 8) Select Save.

When you are done with the workflow design, you can specify other aspects of the form task, such as which form it uses, on the **Such Configuration** page.

Form Task Details Fields

Name

The name of the task. Any performer assigned to complete the task selects it by this name in the Inbox. Tasks in the same step should have different names.

Instructions

Information that helps task performers complete workflow tasks.

Add a Sub-workflow Task to a Task Step

Sub-workflow tasks enable workflows to run as part of other workflows. A sub-workflow task can run synchronously or asynchronously. When a sub-workflow task runs synchronously, the host workflow waits for the sub-workflow to finish before proceeding to the next step. When a sub-workflow task runs asynchronously, the host workflow continues running while the sub-workflow runs.

To add a sub-workflow task to a task step:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select a task step.
- 5) In the **Step** area, select **+ Add ▼**, and then select **Sub-workflow Task**.
- 6) In the Sub-workflow Task Details dialog box, enter a Name and Description for the task.
- 7) Select **OK**.
- 8) Select Save.

When you are done with the workflow design, you can specify other aspects of the sub-workflow task, such as which sub-workflow it uses, on the **Workflow Configuration** page.

Sub-workflow Task Details Fields

Name

The name of the task. Any performer assigned to complete the task selects it by this name in the Inbox. Tasks in the same step should have different names.

Description

Additional information about the task.

Add an Update Field Task to a Task Step

Update field tasks update fields associated with the objects that they run against.

To add an update field task to a task step:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select a task step.
- 5) In the **Step** area, select **+ Add ▼**, and then select **Update Field Task**.
- 6) In the **Update Field Task Details** dialog box, enter a **Name** and **Description** for the task.
- 7) Select OK.
- 8) Select Save.

When you are done with the workflow design, you can specify other aspects of the update field task, such as which field is updated with which value, on the **S Workflow Configuration** page.

Update Field Task Details Fields

Name

The name of the task. Tasks in the same step should have different names.

Description

Additional information about the task.

Add a Portfolio Refresh Task to a Task Step

If a change that is made to a project affects a portfolio, the change won't be reflected in the portfolio until the portfolio is refreshed. Portfolio refresh tasks enable you to specify when exactly a portfolio is updated with the most current information.

You should consider adding a portfolio refresh task after any step or series of steps that makes changes to a project record in such a way that they may affect a portfolio record.

For example, say you have a portfolio that is set to include all projects with a certain status. If you have a workflow task that changes the status of a project that was once included in a portfolio so it is now excluded from the portfolio, then you should consider following it with a portfolio refresh task. Similarly, if you have a workflow task that changes the status of a project that was once excluded from a portfolio so it is now included in a portfolio, then you should consider following it with a portfolio refresh task.

To add a portfolio refresh task:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select a task step.
 This step should follow a step or series of steps that makes changes to any project in the portfolio records that you want the portfolio refresh task to refresh.
- 5) In the **Step** area, select **+ Add ▼**, and then select **Portfolio Refresh Task**.
- 6) In the **Portfolio Refresh Task Details** dialog box, enter a **Name** and **Description** for the task.
- 7) Select OK.
- 8) Select Save.

When you are done with the workflow design, you can specify other aspects of the portfolio refresh task, such as which portfolios it will refresh, on the **Solution** Workflow Configuration page.

Portfolio Refresh Task Details Fields

Name

The name of the task. Tasks in the same step should have different names.

Description

Additional information about the task.

Add a Service Task to a Task Step

Service tasks initiate a service, such as synchronization, to perform automatically during runtime.

To add a service task to a task step:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select a task step.
- 5) In the **Step** area, select **+ Add**, and then select **Services Task**.
- 6) In the Services Task Details dialog box, enter a Name and Description for the task.
- 7) Select OK.
- 8) Select Save.

When you are done with the workflow design, you can specify other aspects of the service task, such as which service will run, on the **Workflow Configuration** page.

Service Task Details Fields

Name

The name of the task. Tasks in the same step should have different names.

Description

Additional information about the task.

Add a Manual Decision Step

Each manual decision step has one decision question. Performers or groups of performers answer this question to determine the subsequent path of the workflow.

To add a manual decision step:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) On the Workflow Design toolbar, select the ♦ Add a manual decision step and drag it onto the workflow design canvas.
- 5) Use connector lines to define the position of the new step with respect to other steps. To add a connector line between two steps, select **Draw connector line** on the step where you want the connector line to begin, then select the step where you want the connector line to end

Each connector line from a decision step corresponds to an exit option listed in the Manual Decision area.

- 6) Select the new step.
- 7) In the **Manual Decision** area, enter a **Name** and a **Description** for the step.
- 8) In the **Exit Options** list, enter a new name for each exit option.

The name you enter for each exit option appears as a possible answer to the assigned performers.

- 9) In the **Task Name** field, enter a name for the manual decision task.
 - The name you enter here appears as the task name to the assigned performers.
- 10) In the **Instructions** text area, enter any instructions that may help task performers complete the task.
- 11) In the **Decision Question** text area, enter the question that the task performers answer to complete the task.

Performers choose one of the listed exit options to answer this question.

12) Select Save.

Specify other aspects of the manual decision step on the 4 Workflow Configuration page.

Manual Decision Fields

Name

A unique, meaningful name that helps users distinguish the step from other steps.

Description

A summary that helps workflow task performers understand the purpose of the step and how to complete it.

Exit Options

The options a user chooses from to complete a manual decision step and initiate a subsequent part of the workflow.

Task Name

The name of the task. Any performer assigned to complete the task selects it by this name in the Inbox.

Instructions

Information that helps task performers complete workflow tasks.

Decision Question

The question that manual decision task performers must answer to complete the associated manual decision step.

Add an Automatic Decision Step

Automatic decision steps have the system decide the subsequent path of a workflow. The system bases its decision on the value of a designated field.

To add an automatic decision step:

1) In the object selector, select a workspace.

- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the Workflow Design page, select a workflow design.
- 4) On the Workflow Design toolbar, select the � Add an automatic decision step icon and drag it onto the workflow design canvas.
- 5) Use connector lines to define the position of the new step with respect to other steps. To add a connector line between two steps, select Draw connector line on the step where you want the connector line to begin, then select the step where you want the connector line to end.
 - Each connector line from a decision step corresponds to an exit option listed in the Automatic Decision area.
- 6) Select the new step.
- 7) In the **Automatic Decision** area, enter a **Name** and a **Description** for the automatic decision step.
- 8) In the **Exit Options** list, select each exit option and enter a name for it.

 Since the system performs automatic decision tasks, these names are only meant to make designing and monitoring the workflow easier.
- 9) Select Save.

Specify other aspects of the automatic decision step on the **Workflow Configuration** page.

Automatic Decision Fields

Name

A unique, meaningful name that helps users distinguish the step from other steps.

Description

A summary that helps workflow creators and managers understand the purpose of the step.

Exit Options

The options the system chooses from to complete the automatic decision step and initiate a subsequent part of the workflow. The value of the corresponding Conditions Field (specified with the Workflow Configuration Wizard) determines which exit option the system chooses.

Delete a Workflow Step or a Connector Line

To delete a workflow step or connector line:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the **Workflow Design** page, select a workflow design.
- 4) In the Workflow Design Editor, select a step or connector line.
- 5) Press the **Delete** key.
- 6) Select Save.

Validate a Workflow Design

Before you enable a workflow design by publishing it, you should validate it. This helps you spot problems that would prevent the finished workflow from running or that would cause it to run improperly.

To validate a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) In the Workflow Design Editor, select Validate.
- 5) In the **Validation Errors and Warnings** dialog box, view × **Errors** and **△ Warnings** in the design.

Errors alert you of problems that would cause the complete workflow to fail if you tried to run it. You cannot publish a workflow design with errors.

Warnings alert you of potential problems. They usually describe conditions that may or may not cause problems, depending on the kind of objects the finished workflow will run against. It is not unusual for fully functional workflow designs to include at least one warning.

- 6) Select a row to view more information about the error or warning.
- 7) Select **Show in Diagram** to highlight the issue in the Workflow Design Editor.
- 8) In the Workflow Design Editor, make the necessary changes, and then select **Save**.
- Select Validate to view remaining issues.
 Repeat the validation process until you have resolved all errors and critical warnings.
- 10) Select Save.

Publish a Workflow Design

After you are done editing and validating a workflow design, publish it to make it available for use.

Note: After you publish a workflow design, you can edit most of its properties to create a new draft, but you cannot change its name.

To publish a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select a workflow design.
- 4) When you are ready to enable the workflow design, select **Publish**.

If you publish a workflow design that already has a published version, a new version of the design is created. The new version becomes the version that is active and available for use with workflow configurations. Any workflow configuration that uses an old version of the design will continue to use that version of the design, but any new configuration to which the new version of the design is added will use the new version of the design.

You can view all versions of the workflow design on the Workflow Design page. Old versions are listed beneath the latest version.

Edit a Workflow Design

You can change the properties of workflow designs that are not included in running workflows. If a running workflow is already using a design, you cannot edit it.

To edit a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the **Workflow Design** page, select a workflow design.
- 4) In the Workflow Design Editor, you can edit the design name, add, remove, and edit tasks, steps, and relationships between steps.
- 5) When you are done editing the workflow design, select **Validate** to make sure there are no new errors or critical issues that would prevent the workflow from running properly.
- 6) Select Save or Publish.

Tips

If you try to save a workflow design that is associated with workflow configurations, and if those configurations are not running, then you will receive a prompt to confirm your changes. If you confirm your changes, then the associated configurations will be deleted.

Duplicate a Workflow Design

You can duplicate a workflow design to copy all of its elements and properties into a new design.

To duplicate a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the **Workflow Design** page, select the **© Context** menu next to a workflow design name, and then select **Duplicate**.

The new workflow design is identical to the original workflow design, but the name of the new design ends with "-1," and its status is set to Unpublished. You can edit these and other properties in the Workflow Design Editor.

Delete a Workflow Design

You can delete workflow designs that will no longer be used.

Note: You cannot recover a deleted workflow design. Deleting a workflow design permanently removes it from the database.

To delete a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the **Workflow Design** page, select the **© Context** menu next to a workflow design name, and then select **Delete**.

Tips

If you try to delete a workflow design that is associated with workflow configurations, and if those configurations are not running, then you will receive a confirmation prompt. If you confirm, then the associated configurations will also be deleted.

Update an Owning Workspace for a Workflow Design

Update the owning workspace of a workflow design to move it to another workspace that you are assigned. If you move the design to a workspace that is higher in the workspace hierarchy, it will be available to more workspaces.

To update the owning workspace of a workflow design:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the **Workflow Design** page, select the **© Context** menu next to a workflow design name, and then select **Change Owning Workspace**.
- 4) In the **Select Workspace** dialog box, select the new owning workspace, and then select **Select**.
- 5) Select Save.

Assign a Workflow Design from a Parent Workspace

On the Workflow Design page, you can assign workflow designs from parent workspaces to the open child workspace. This makes workflow designs available for use in the child workspace, but they can still only be edited in their owning workspaces.

To assign a workflow design from a parent workspace:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the Workflow Design page, select Assign.
 - The Assign Workflow Design dialog box lists all available workflow designs in all workspaces to which the child workspace is subordinate.
- 4) In the **Assign Workflow Design** dialog box, select all workflow designs that you want to be available for the child workspace.
- 5) Select Assign.

Now you can use the workflow design in the child workspace, but you can't edit it. To do that, you must update its owning workspace. See *Update an Owning Workspace for a Workflow Design* (on page 32).

Form Design

On this page, you can create, duplicate, and delete forms. You can also access the Form Editor, where you can edit forms.

Along with custom forms, the Form Design page may list pre-built forms that come with Primavera Cloud. These forms are indicated with a check mark in the System column, and their names end with "(System)". Depending on your security permissions, you can copy and customize these pre-built forms.

Configure View Settings (on page 118)

Forms Overview

Forms Overview Video

In Oracle Primavera Cloud, forms are used to present or collect data about a variety of objects. They can be shown to users during workflows, or they can be used to replace some default forms in the application.

When creating workflows, you can add forms to form tasks and manual decision tasks. Form tasks require performers to complete or review forms. Manual decision tasks do not require forms, but they can include forms that performers can fill out or view before making required decisions.

When configuring workspace settings, you can choose a form to take the place of the default General page for all projects or portfolios in the workspace. You can also replace the default Propose Risk form with a custom form.

To add, edit, delete, and view workflows and forms, you must have the corresponding security privileges.

Security Permissions for Workflows and Forms

Your security permissions determine what you can do with workflows and forms. Your workspace administrators, application administrators, and portfolio managers define these permissions.

In the Workflows and Forms app, on the Monitor Workflows page, you can always view running workflows that you are assigned as a workflow manager. But to monitor all workflow instances, even those that you are not assigned as a workflow manager, you must have the global **Administer Workflow Instances** permission.

Workspace permissions determine your ability to start workflows and add, edit, delete, and view workflow designs, workflow configurations, and forms. To add, edit, delete, and view workflow designs, workflow configurations, and forms in a workspace, you must have the corresponding **Workflow Designs**, **Workflow Configurations**, and **Forms** security privileges in that workspace.

To manually start workflows on the Start Workflow page in a workspace, you must have the **Start Workflows** security privilege in that workspace.

You can also start workflows by performing certain actions on other objects besides the workflows and forms. Privileges to start workflows by performing these actions override all other privileges. For example, with the **Edit Project Budget** privilege, you can initiate a budget approval workflow on the Budget log page, regardless of whether you have any other workflows or forms privileges.

When assigning context objects to workflow and form elements in the workflow and form editors, you can only select objects that you have access to.

Selecting Forms for Availability on the Forms List Page

You can select custom forms for users to access from the Forms List page in an open idea, portfolio, program, or project. Restricted configured fields in project forms show as non-editable for users that do not have the workspace permission for Edit Restricted Configured Field. For more information on how to create and access a custom form, see *Creating a Custom General Form* (on page 90) and *Accessing a Custom General Form* (on page 91).

To make a custom form available on Forms List:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- On the Form Design page, locate the form and select the Available on Forms List check box.

Users will now have access to the form on the Forms List page.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page. When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Form Editor

Create and edit form elements with the Form Editor. Workflow performers use forms to complete workflow steps and tasks. Forms can also be used to replace some default forms in the application.

Working With the Form Editor

With the Form Editor, you can create and edit forms to be used in workflows. Forms can also be used to replace some default forms in the application. To add, edit, delete, or view forms in a workspace, you must have the corresponding Workflows and Forms security privileges in that workspace.

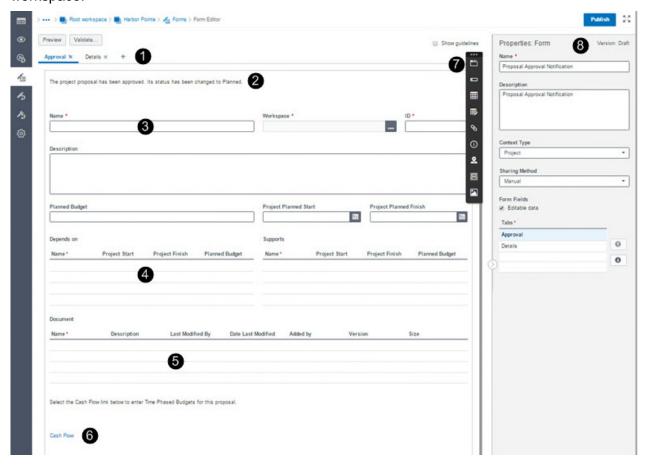


Table of Screen Highlights

Item	Description
1	Tab : Tabs enable you to separate and categorize other form elements.
2	Instruction Text : Instruction text helps task performers complete forms and their associated tasks.
3	Field : Fields are used to display or collect information about the object that the workflow element using the form runs against.
4	Grid : Grids list information about projects related to the objects that forms display or collect information about.
5	File Grid : File grids allow users to add new files to objects that tasks run against or to link existing Primavera Cloud files to running workflows.

Item	Description
6	Link : Links let users access pages associated with objects that forms display or collect information about.
7	Form Toolbar: On the Form toolbar, select elements to add to the form.
8	Properties Area : The Properties Area displays the properties of the selected form or form element. In the Form Editor, select a tab to view the properties of the entire form, or select a form element to view the properties of that element.

Create a Form

Forms can include several kinds of elements: tabs, fields, tables, file grids, links, instruction text, location information, group boxes, and cover images. Each kind of form element has properties that you can define in the Properties area of the Form Editor.

To create a form:

- 1) **Add a Form** (on page 36)
- 2) Add Form Elements to a Form (on page 38)
- 3) Validate a Form (on page 51)
- 4) **Publish a Form** (on page 52)

Add a Form

In Oracle Primavera Cloud workflows, forms are used to present and collect data about projects, project proposals, portfolio planning periods, scenarios, risks, and ideas. They can also be used to replace some pages in the application.

To add a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select + **Add** to open a new form in the Form Editor.
- 4) In the **Properties: Form** area, in the **Name** field, enter the name that users will be able to select on the Forms page.
- 5) In the **Description** field, enter a description to help users distinguish the form from other forms.
- 6) In the Context Type list, select the kind of objects that you want the form to update or describe.
- 7) In the **Sharing Method** list, specify how the data is shared between parent and child workspaces:
 - Manual: The data can be pulled down by child workspaces individually, using the Assign button in each child workspace. This is the default option.
 - **Automatic**: The data is pushed down to child workspaces automatically.

8) Select Save.

When you save a form for the first time, it becomes a draft. If you navigate back to the Forms page, you will see that its Status is set to Draft. This means that it is not yet available for use. It will not become available until you publish it.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page. When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Tips

- To make all fields in the form editable, select **Editable data** in the **Properties: Form** area.
- To show guidelines marking the vertical edges of form elements, select **Show guidelines**.
- To see how your form will appear when published in other areas of the application, select Preview. To see how the form will appear when it runs against a specific object, select Set Context on the Preview page.

Related Video Tips

Sharing Workflows and Forms Video

Form Context Type Overview

When you create a form, you must specify its context type. The Context Type value of a form determines what kinds of objects it can update or display information about.

In workflows, the specific objects a form can update or describe is determined by how workflows that use the form are configured and started.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page. When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Properties: Form Area Fields

Name

The name of the form that appears in the list on the Forms page. Form names must be unique.

Description

Provides information about the form and helps users distinguish it from other forms.

Context Type

The kinds of objects that the form updates or displays information about.

Sharing Method

How data is shared between parent and child workspaces.

Manual: Data can be pulled down by child workspaces. This is the default option.

Automatic: Data is automatically shared with all child workspaces.

Editable data

Determines whether all form data, such as field values, can be edited by performers who view the form. If the Editable data option is selected, task performers can use the form to edit objects that the form displays information about. This option should not be selected in forms that are only used to display information.

Field Mapping

In forms that are used to create new objects, the Field Mapping value determines how information from other objects is used to populate fields for the new object.

For example, let's say you have a workflow that takes an idea object and turns it into a project proposal object. In this case, you would probably want the fields of the new project proposal to be populated based on the values of the idea record from which it was created. Field mappings enable this to happen automatically.

Field mappings are created on the Summary & Settings menu at the workspace level.

Enable Discussion

This option only applies to project forms. It enables task performers to view and post discussion comments on projects that the form runs against.

Add Form Elements to a Form

After you have created a form, you can add form elements to it.

Refer to these topics to learn how to add form elements to a form:

- ▶ Add a Tab to a Form (on page 39)
- ▶ Add a Group Box to a Form (on page 39)
- Add a Field to a Form (on page 40)
- ▶ Add a Table to a Form (on page 42)
- ▶ Add a File Grid to a Form (on page 45)
- ▶ Add a Link to a Form (on page 48)

- ▶ Add Instructions to a Form (on page 49)
- ▶ Add Location Information to a Form (on page 49)
- ▶ Add a Cover Image to a Form (on page 51)

Add a Tab to a Form

Form tabs enable you to separate and categorize other form elements.

To add a tab to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the Form Design page, select a form.
- 4) In the Form toolbar, select the **Tabs** icon and drag it onto the form canvas.
- 5) In the **Properties: Form** area, in the **Tabs** list, enter a name for the new tab.

 If this is the first tab you have added to the form, you should also enter a new name for the original tab, which is titled Tab 1 by default.
- 6) If you want to change the position of the new tab, drag its heading in the form canvas left or right. Alternatively, select it in the **Tabs** list in the **Properties: Form** area, and then select **™** Move tab up or **™** Move tab down.
- 7) Select Save.

Tips

▶ To delete a tab and all form elements it contains, select **✗ Delete Tab** to the right of the tab title

Add a Group Box to a Form

You can add group boxes to a form to help organize its fields and other elements. Group boxes can have labels and frames. This helps visually distinguish them from other parts of the form.

To add a group box to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) In the Form toolbar, select the **Group Box** icon and drag it onto the form canvas.
- 5) In the **Properties: Group Box** area, in the **Title** field, enter the title of the group box.
- 6) Select Save.

Tips

- To hide the group box frame and label, select **Hide group box frame and label** in the **Properties: Group Box** area.
- ▶ To change the width of a group box, move your cursor to the left or right edge and drag it to the desired length.

Add a Form Element to a Group Box

After you have added a group box to a form, you can add other form elements (besides tabs) to it.

To add a form element to a group box:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, select a form.
- 4) In the Form Editor, select a group box.
 - When selected, the group box should have a temporary border, and its background should be a different color from the rest of the form.
- 5) In the Form toolbar, select any element and drag it onto the form canvas.

Properties: Group Box Area Fields

Title

The user-defined title of the form element that appears in the form. Form element titles do not need to be unique.

Hide group box frame and label

When selected, hides the frame and label of the group box when the form is presented to a user.

Editable data

Determines whether performers can edit data in elements in the group box. If you select this option for a group box, all applicable elements within that group box will also be made editable. This does not include fields that can never be made editable, like formula-defined fields. You can then individually make these elements non-editable. You cannot, however, set the group box to be non-editable, and then set an element it contains to be editable, even if the editable option for the elements is not grayed out.

Required

Determines whether the form element must contain data before the form containing the element can be submitted.

Add a Field to a Form

Fields enable task performers to view and edit data.

To add a field to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) On the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 5) (Portfolio or Portfolio Project forms only) In the **Select Fields** dialog box, in the **Business Objects** field, select the kind of object that you want the field to update or describe.

The Business Objects value determines which kind of fields are shown in the Available list. For example, if you select **Project**, the Available list shows project-level fields.

By default, the value of the Business Objects field matches the context type of the form. If you want the field to update or display information associated with the same object as the form, do not change the value of the Business Objects field.

If you choose **Project** or **Portfolio Project**, and if the form includes at least one grid, you can set the **Context** of the field to **Focused row in [grid name]** after you add the field. With this configuration, when a user selects a row in the specified grid, the field displays information for the project described in the selected row.

Restricted configured fields in portfolio, program, and project forms show as non-editable for users that do not have Edit selected for the Edit Restricted Configured Fields workspace privilege.

6) In the **Available** list, select a field, and then select > **Move Right** to move it to the **Selected** list

You can add multiple fields at once. To reposition a field in the **Selected** list, select it, and then select \land **Move Up** or \checkmark **Move Down**.

- 7) Select **Select**.
- 8) Select the new field.
- 9) In the **Properties: Field** area, edit the field properties.
- 10) Select Save.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page. When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Tips

- ▶ The values of some fields, including many related to schedule health and progress, are always determined by calculations and not user input. These fields cannot be marked editable in the **Properties: Field** area.
- ▶ To reposition a field on the form canvas, select it, and then drag it to the desired location.
- ▶ To change the width of a field, move your cursor to the left or right edge and drag it to the desired length.

Properties: Field Area Fields

Context

The specific object that the form element displays or collects information about.

Several factors determine which Context values are available for a field: the Object Type value of the field, the Context Type value of the form that contains the field, and whether the form that contains the field also includes at least one grid.

The Object Type value of the field corresponds to the Business Objects value you choose in the Select Fields dialog box when you add the field.

If the Object Type value of the field matches the Context Type value of the form—or if the Context Type value of the form is Portfolio Project—then you can set the context of the field to **Same as form**. In this case, the field describes the same object that the form runs against.

If the Object Type value of the field is Project or Portfolio Project, and if the form also includes a grid, you can set the Context of the field to **Focused row in [grid name]**. With this configuration, when a user selects a row in the specified grid, the field displays information for the project described in the selected grid row.

Height in Rows

The height of the form element in text rows.

Editable data

Determines whether performers can edit data in the form element. The values of some fields, including many related to schedule health and progress, are always determined by calculations and not user input. These fields cannot be made editable.

Required

Determines whether the form element must contain data before the form containing the element can be submitted.

Default Value

The value that the field displays when a user first opens the form. If a user submits a form without changing a field from its default value, the object that the form runs against will be affected as if the user had entered the default value.

Add a Table to a Form

Use tables to provide information about projects that are related to objects that forms run against.

To add a table to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the Form Design page, select a form.
- 4) On the Form toolbar, select the **E** Table icon and drag it onto the form canvas. The **Select Fields** dialog appears.
- On the Configuration tab, in the Grid Type list, select the kind of table you want to add. Which types of tables are available depends on the Context Type value of the form. Any form with a Context Type value of Project or Portfolio can include a Depends On or Supports table. These tables list projects that depend on or support the project that the form runs against or a highlighted project in a separate table in the form, depending on the Context value of the table and whether the form includes another table.

Portfolio forms can include **Candidate Projects** or **Selected Projects** tables. **Candidate Projects** tables list all projects available for inclusion in the scenario the form runs against. This includes all projects from the portfolio filter that have been included in the scenario. Projects marked **Selected**, **Forced In**, **Forced Out**, and **Unselected** appear in this list. **Selected Projects** tables list all projects marked **Selected** or **Forced In** in the scenario the form runs against.

An idea or project form can include an **Evaluation Table**. Evaluation tables present and collect scores for evaluation categories that help team members assess projects. For example, a project may have an evaluation category called Feasibility and a subcategory called Financial Risk. A form task performer can use an evaluation table in a form to view or set the value of this Financial Risk subcategory for the project that the form task runs against.

A project form can include a **Cash Flow Table.** A form task performer can use a cash flow table to view and set variations of information for up to 9 rows for the project that the form task runs against. Rows and Columns can be selected or deselected. The cash flow table allows for time distribution of cash flow data, as well as the ability to edit and view capital and expense data on projects where capital and expense breakdown is enabled. Dynamic rows from portfolio are not included.

Other types of forms can include tables that are more specific to their respective objects. For example, budget forms can include **Budget Line Items** tables. The table at the bottom of this topic shows which tables are available for each type of form.

- 6) (Portfolio forms only) In the **Business Objects** list, select the kind of data that you want the table to include.
 - If you want the table to include project-level data for each listed project, select **Project**. If you want the table to include budgeting data associated with each listed project, select **Portfolio Project**.
- 7) In the **Available** list, select a column, and then select > **Move Right** to move it to the **Selected** list.

You can select and move multiple columns.

- To change the position of a column in the table, select it in the **Selected** list, and then select
- ^ Move Up to move it left in the table or ➤ Move Down to move it right in the table.
- 8) (Optional) If you want the grid to list objects based on filter criteria, select the **Filters** tab and specify the criteria.
 - In the **Match** list, select the filter criteria. In the **Field** list, select the field by which to filter the items that appear in the table. In the **Operator** list, select an operator. In the **Value** field,
 - select or enter a value. To add or delete new filter criteria, select the **Context** menu, and then select **Add Above**, **Add Below**, or **Delete**.
- 9) Select Select.
- 10) In the Form Editor, select the new grid.
- 11) In the **Properties: Grid** area, edit the grid properties.
- 12) Select **Save**.

Tips

- ▶ You can add, delete, reposition, and resize grid columns in the **Properties: Grid** area, under the **Columns** heading.
- ▶ To add columns, select + Add.
- ▶ To delete a column, select the column, and then, under the **Columns** heading, select × **Delete**.
- ► To change the position of a column, select it, and then select **6** Move Up or **9** Move Down.
- ▶ To add or edit filters in the grid, select **∀Filters**.
- ▶ To change the width of a table, move your cursor to the left or right edge and drag it to the desired length.

This table shows which tables are available for each form context type:

Form	Available Tables
Context Type	
Budget	Budget Line Items
Budget Change	Budget Change Details
Budget Transfer	Budget Transfer Details
Changes	Change Estimates
Change	▶ Line Items
Order	▶ Schedule of Values
Commitme nt	▶ Line Items
	Schedule of Values
Contract	▶ Line Items
	▶ Schedule of Values
Idea	▶ Evaluation Table
Portfolio	Candidate Projects
	Selected Projects
	▶ Depends on
	▶ Supports
	Evaluation Table
Portfolio	▶ Depends on
Project	▶ Supports
	Evaluation Table

Potential Change Order	No tables available)
Project	 Depends On Supports Evaluation Table Cash Flow Table
Risk	No tables available)
Submittal	No tables available)

Properties: Grid Area Fields

Title

The user-defined title of the form element that appears in the form. Form element titles do not need to be unique.

Context

The specific object that the form element displays or collects information about. If there are no other project tables in the form, then the only valid Context value is **Same as form**. If the form includes a project table (Depends On, Supports, Evaluation Table, or Cash Flow Table) along with a portfolio table (Candidate Projects or Selected Projects), you can set the Context field of the project table to **Focused row in [table name]**. With this configuration, the project table shows information about the highlighted project in the portfolio table.

Rows

The number of rows to display in the grid.

Editable data

Determines whether performers can edit data in the form element.

Required

Determines whether the form element must contain data before the form containing the element can be submitted.

Add a File Grid to a Form

File grids allow users to add new files to objects that tasks run against or to link existing Primavera Cloud files to running workflows.

When a task performer uses a file grid to add a file, that file becomes available alongside other files in the folder structure of the object that the task runs against. In order for task performers to add files to an object, they must have the required file security privileges for that object.

When a task performer uses a file grid to link a file, information about that file is visible on the file grid for subsequent workflow tasks that use it in the same context. In order for task performers to link files, they must have the required security privileges for these files.

In order for subsequent task performers to see information about added or linked files on the file grid, they must have the required security privileges for these files.

To add a file grid to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) On the Form toolbar, select the File Grid icon and drag it onto the form canvas.
- 5) In the **Select Fields** dialog box, in the **Available** list, select the fields to add to the file grid and then select > **Move Right**.

The fields you select here determine what information the file grid displays about all files that are added or linked with the file grid.

You can add multiple fields at once.

To reposition a field in the Selected area, select it and then select △ Move Up or ➤ Move Down.

- 6) Select Select.
- 7) Select the new file grid.
- 8) In the Properties: File Grid area, edit the properties of the file grid.

Under **Usage**, select **Required** for those columns you want required, and **Editable Data** to make those columns editable.

Note: Some columns are automatically configured. For example, Name is required. Some columns, such as Last Modified By, are not required nor editable, so these options are disabled.

Under **File Grid Usage**, select **Add** if you want users to be able to add new files to the objects that the form runs against. Select **Link/Unlink** if you want users to be able to link existing files to the workflow.

Note: Files are linked or unlinked only to a form used in the workflow.

9) Select Save.

Tips

You can add, delete, reposition, and resize file grid columns in the **Properties: File Grid** area, under the **Columns** heading.

Note: The **Name** column is mandatory, cannot be deleted from or moved within the grid, and is by default the first column.

▶ To add columns, select + Add.

- ▶ To delete a column, select the column and then, under the **Columns** heading, select × **Delete**.
- ► To change the position of a column, select it, and then select **6** Move Up or **9** Move Down.
- To change the width of a column, select the width percentage of the column, and enter a new value.
- To change the width of a file grid, move your cursor to the left or right edge and drag it to the desired length.

Properties: File Grid Area Fields

Title

The user-defined title of the form element that appears in the form. Form element titles do not need to be unique.

Description

Additional information about the file grid for users who create and edit forms. This description does not appear for users who view or complete the form as part of a workflow task.

Context

The specific object that the form element displays or collects information about. If there are no project or portfolio grids in the form, the only valid Context value is **Same as form**. If the form includes a separate grid that lists projects, you can set the Context of the file grid to **Focused row in [grid name]**. With this configuration, users can use the file grid to add files to projects that they select in the separate project grid.

Height in Rows

The height of the File Grid according to the number of rows.

Required

Determines whether a column is required. When selected, users who complete the form are required to populate the column.

Editable Data

Determines whether a column can be edited. When selected, users who complete the form are able to edit the values in the column.

Add

Determines whether users can add new files using the file grid. When selected, users who complete the form can use the file grid to add new files to any folder they have access to in Primavera Cloud.

Link/Unlink

Determines whether users can use the file grid to link existing files to objects that the form runs against. When selected, users who complete the form can use the file grid to link files that they already have access to in Primavera Cloud to the workflow. This makes it possible for subsequent workflow task performers to access these files from the form. Files are linked or unlinked only to a form used in the workflow.

Add a Link to a Form

Links allow form users to quickly navigate to other pages. These pages can be related to the object that the form itself runs against. For example, if you're making a form that shows information about a project, you can add a link that directs users to some page associated with that project.

Links can also take users to pages associated with objects that they highlight in tables that are also on the form. For example, you may have a form that has a table which lists projects. In this case, the link can point to a page that is associated with any project that the user has highlighted in the table.

Yet another use for links is to direct users to URLs outside of the app or to URLs within the app that are otherwise inaccessible through forms. For example, if you need to refer users to something like a spec, image, or anything else that exists elsewhere on the web, you can use a link in a form. The only limitation to form link URLs is that they have to start with https://.

The Context field determines which object a link corresponds to, and the Linked Page field determines which page opens when a user clicks the link.

To add a link to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, select a form.
- 4) On the Form toolbar, select the **Hyperlink** icon and drag it onto the form canvas.
- 5) In the **Properties: Link** area, edit the link properties.

If you also have a table on the form, and if you want to give users the option to highlight an object on the table and click a link to open some page associated with that object, set the **Context** field to **Focused row in [table name]**. Remember, with this setting, the link will point to whatever **Linked Page** is associated with the object the user highlights in the table.

If you want the link to open an external URL, set the **Linked Page** value to **External URL**. Then, in the **URL** field, enter the external URL that you want to open when the user clicks the link. Remember, external URLs here have to begin with **https://**.

6) Select Save.

Tips

▶ To change the width of a link, move your cursor to the left or right edge and drag it to the desired length.

Properties: Link Area Fields

Title

The user-defined title of the form element that appears in the form. Form element titles do not need to be unique. Link titles appear as link text in forms.

Context

The object associated with the linked page. The context of a link can either be **Same as form** or, if there is a table in the form, **Focused row in [table name]**.

When the context is **Same as form**, the link refers to a page that corresponds to the object that the form runs against. When the context is **Focused row in [table name]**, the link refers to a page belonging to a selected project row in a table element in the form.

Linked Page

The page that appears when a user selects the link.

Add Instructions to a Form

You can add instruction text to forms to help performers complete forms or associated tasks.

To add instructions to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) In the Form toolbar, select the **OInstruction Text** icon and drag it onto the form canvas.
- 5) In the **Properties: Instructions** area, enter and format the instruction text.
- 6) Select Save.

Tips

▶ To change the width of instruction text, move your cursor to the left or right edge and drag it to the desired length.

Properties: Instructions Area Fields

Height in Rows

The height of the form element in text rows.

Add Location Information to a Form

You can add location fields and maps to forms. Location fields and maps can only display information about projects. So if your form has a Context Type value of Project or Portfolio Project, then any location field or map can have a Context value of *Same as form* or *Focused row* in any project table. Alternatively, if your form has a Context Type value of Portfolio, then any location field or map can only show information about projects that might be listed in a project table. This means that any Portfolio form with location information is invalid unless it also includes at least one table that lists projects.

To add location information to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the Form Design page, select a form.
- 4) In the Form toolbar, select the **Location** icon and drag it onto the form canvas.
- 5) In the **Select Location Fields** dialog box, in the **Available** list, select a field or the **Map** option, and then select \geq **Move Right**.
 - Like other fields, location fields let users view or enter text and numbers. The only difference here is that the fields you can pick all have to do with geographic information.

A map visually conveys the location of a project, as long as that project has Longitude and Latitude values.

You can add multiple fields at once. To reposition a field in the **Selected** list, select it, and then select $^{\wedge}$ **Move Up** or $^{\checkmark}$ **Move Down**.

- 6) Select Select.
- 7) In the **Properties: Field** or **Properties: Map** area, edit the field or map properties.
- 8) Select Save.

Tips

▶ To change the width of a location field or map, move your cursor to the left or right edge and drag it to the desired length.

Properties: Field Area Fields

Context

The specific object that the form element displays or collects information about.

Several factors determine which Context values are available for a field: the Object Type value of the field, the Context Type value of the form that contains the field, and whether the form that contains the field also includes at least one grid.

The Object Type value of the field corresponds to the Business Objects value you choose in the Select Fields dialog box when you add the field.

If the Object Type value of the field matches the Context Type value of the form—or if the Context Type value of the form is Portfolio Project—then you can set the context of the field to **Same as form**. In this case, the field describes the same object that the form runs against.

If the Object Type value of the field is Project or Portfolio Project, and if the form also includes a grid, you can set the Context of the field to **Focused row in [grid name]**. With this configuration, when a user selects a row in the specified grid, the field displays information for the project described in the selected grid row.

Height in Rows

The height of the form element in text rows.

Editable data

Determines whether performers can edit data in the form element. The values of some fields, including many related to schedule health and progress, are always determined by calculations and not user input. These fields cannot be made editable.

Required

Determines whether the form element must contain data before the form containing the element can be submitted.

Default Value

The value that the field displays when a user first opens the form. If a user submits a form without changing a field from its default value, the object that the form runs against will be affected as if the user had entered the default value.

Properties: Map Area Fields

Context

The specific object that the form element displays or collects information about.

Add a Cover Image to a Form

Cover images correspond to projects. If a form has a context type value of Project, it can include a cover image that corresponds to the project that the form runs against. Alternatively, if the form has a table that lists projects, it can include a cover image that corresponds to the selected row in the project table.

To add a cover image to a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) In the Form toolbar, select the **D** Cover Image icon and drag it onto the form canvas.
- 5) Select Save.

Tips

▶ To change the width of a cover image row, move your cursor to the left or right edge and drag it to the desired length.

Properties: Cover Image Area Fields

Context

The specific object that the form element displays or collects information about.

Delete a Form Element

To delete a form element:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) In the Form Editor, select an element.
- 5) Press Delete.
- 6) Select Save.

Tips

 \blacktriangleright To delete a tab and all elements it contains, select \times **Delete** to the right of the tab title.

Validate a Form

Before you enable a form by publishing it, you should validate it. This helps you determine whether it contains any problems that may prevent it from running properly.

To validate and enable a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.
- 4) In the Form Editor, select **Validate** to open the **Validation Errors and Warnings** dialog box, where you can view **X Errors** and **△ Warnings**.
 - Errors are problems that will cause the form to fail if you try to run it. Warnings alert you of potential problems that usually depend on the objects the form runs against.
- 5) If the form has warnings or errors, select one to view more information about it in the **Description** area.
- 6) Select **Show in Form** to highlight the issue in the Form Editor.
- 7) In the Form Editor, make any necessary changes, and then select **Save**.
- 8) Select Validate to view remaining issues.Repeat the validation process until you have resolved all errors and critical warnings.
- 9) Select Save.

Publish a Form

After you are done editing and validating a form, publish it to make it available for use.

Note: After you publish a form, you can edit most of its properties to create new drafts, but you cannot change its name or context type.

To publish a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, select a form.
- 4) When you are ready to enable the form, select **Publish**.

If you publish a form that already has a published version, a new version of the form is created. You can view all versions of the form on the Forms page. Old versions are listed beneath the latest version.

Tips

Which version of a form a workflow uses depends on the Associate Forms setting in the corresponding workflow configuration.

Edit a Form

You can change the properties of forms and form elements.

To edit a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select a form.

- 4) In the Form Editor, add, edit, and delete form elements.
- 5) When you are done editing the form, select **Validate** to make sure there are no new errors or critical issues that would prevent it from running properly.
- 6) Select Save or Publish.

Duplicate a Form

You can duplicate a form to copy all of its elements and properties onto a new form.

To duplicate a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select the **Context** menu next to a form row, and then select **Duplicate**.

The new form has the same properties as the original form, but the name of the new form ends with "-1" and is marked Unpublished. Open the form to edit these and other properties in the Form Editor.

Delete a Form

You can delete forms that will no longer be used.

Note: You cannot recover a deleted form. When you delete a form, it is permanently deleted from the database.

To delete a form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select the **Ochiext** menu next to a form row, and then select **Delete**.

Tips

You cannot delete a form that is being used in a running workflow or as the Details page for projects.

Update the Owning Workspace of a Form

Update the owning workspace of a form to move it to another workspace that you are assigned. If you move the form to a workspace that is higher in the workspace hierarchy, it will be available to more workspaces.

To update the owning workspace of a form:

1) In the object selector, select a workspace.

- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) Select the **Context** menu, and then select **Change Owning Workspace**.
- 4) In the **Select Workspace** dialog box, select the new owning workspace, and select **Select**.
- 5) Select Save.

Assign a Form from a Parent Workspace

On the Form Design page, you can assign forms from parent workspaces to the open child workspace. This makes them available for use in the child workspace, but they can still only be edited in their owning workspaces.

To assign a form from a parent workspace:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the Form Design page, select Assign. The Assign Forms dialog box lists all available forms in all workspaces to which the child workspace is subordinate.
- 4) In the **Assign Forms** dialog box, select all forms that you want to be available for the child workspace.
- 5) Select **Assign**.

Now you can use the form in the child workspace, but you can't edit it. To do that, you must update its owning workspace. See *Update the Owning Workspace of a Form* (on page 53).

Recover System Forms in the Root Workspace

If you have the required privileges, you can recover the default System forms that come with Primavera Cloud and add them to the root workspace, making them available for use in subordinate workspaces. This is useful if the system forms are deleted. You cannot recover forms that are already available.

To recover a system form in the root workspace:

- 1) In the object selector, select the **root** workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- On the Form Design page, select Assign.
 The Assign System Forms dialog box lists all available system forms.
- 4) In the **Assign System Forms** dialog box, select the system forms that you want to restore and make available in the root workspace.
- Select Assign.

Now you can assign the chosen system forms to other workspaces. See *Assign a Form from a Parent Workspace* (on page 54).

Workflow Configuration

Once you have at least one workflow design, you can create workflow configurations. Use workflow configurations to specify the detailed settings that make workflow designs work.

A workflow design can be associated with multiple configurations, but a workflow configuration can only be associated with one design.

On the **Workflow Configuration** page, some rows may show the G **Refresh Workflow Design** icon. This icon indicates that the workflow design associated with the configuration has been updated. Select it to see what has been changed and to accept or reject the changes on the View Updates page. If you plan to import or export Primavera Cloud data, you should first resolve all configurations associated with updated designs.

Configure View Settings (on page 118)

Workflow Configuration Overview

Workflow Configuration Overview Video

Workflow configurations store the detailed settings that make workflow designs work. After you create a workflow design, you must create a corresponding workflow configuration. After that, you can run the complete workflow against objects in Oracle Primavera Cloud.

A workflow design can be associated with more than one configuration, but a workflow configuration can only be associated with one design.

On the Start Workflow page, workflows are named after their corresponding configurations.

Working With the Workflow Configuration Wizard

A published workflow design, coupled with a published workflow configuration, makes a complete workflow, which you can run against objects in Primavera Cloud. After you have created a workflow design, use the Workflow Configuration Wizard to specify its details.

The Workflow Configuration Wizard has two steps. On the first step, select a workflow design. The second step, Configure Workflow, is where you set the important details. Here are the main parts of the Configure Workflow step:

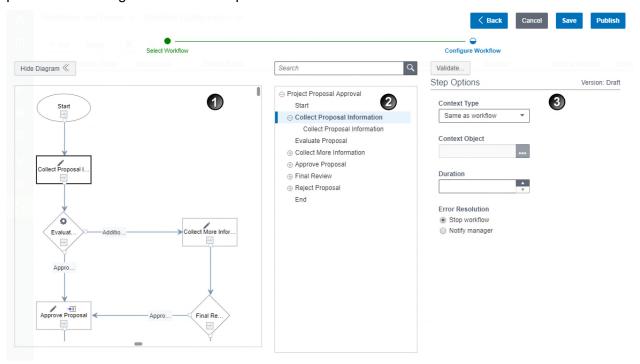


Table of Screen Highlights

Item	Description
1	Workflow diagram: Select Show Diagram to view the workflow diagram.
2	Workflow element list : The workflow element list lists all workflow elements for which you can set detailed properties. When you select a workflow element in this list, its properties appear in the Options area (3). Selectable elements include the entire workflow, steps, and tasks.
3	Options area: When you select a workflow element in the element list, its properties appear here.

Create a Workflow Configuration

After you create a workflow design, you must create a workflow configuration to go with it. This combination makes a complete workflow.

The following tasks step you through the typical procedure for creating a workflow configuration:

- 1) Add a Workflow Configuration (on page 57)
- 2) Validate a Workflow Configuration (on page 57)

3) **Publish a Workflow Configuration** (on page 58)

Add a Workflow Configuration

To add a new workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the Workflow Configuration page, select + Add.
- 4) In the **Select Workflow** step of the wizard, select a workflow, and then select **Next**.
- 5) In the **Configure Workflow** step of the wizard, define the properties of the workflow and each workflow element.
 - Select the name of the workflow design, each step, and each task to view and edit its properties.
 - Select **Show Diagram** to view the workflow diagram alongside the list of steps and tasks.
- 6) Select Save.

For more information on task configuration fields, see *Workflow Configuration Wizard Fields* (on page 58).

Validate a Workflow Configuration

To validate a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the **Workflow Configuration** page, select a workflow configuration.
- 4) In the Workflow Configuration Editor, select **Validate**.
- 5) In the **Validation Errors and Warnings** dialog box, view \times **Errors** and **A Warnings** in the configuration:
 - Errors alert you of problems that would cause the complete workflow to fail if you tried to run it. You cannot publish a workflow configuration with errors.
 - Warnings alert you of potential problems. They usually describe conditions that may or may not cause problems, depending on the kind of objects the finished workflow will run against.
- 6) Select a row to view more information about the error or warning.
- 7) In the Validation Errors and Warnings dialog box, select Close.
- 8) In the Workflow Configuration Editor, make the necessary changes, and then select **Save**.
- 9) Select **Validate** to view remaining issues. Repeat the validation process until you have resolved all errors and warnings.
- 10) Select Save.

Publish a Workflow Configuration

After you are done editing and validating a workflow configuration, publish it to make the complete workflow available for use.

Note: After you publish a workflow configuration, you can edit most of its properties to create a new draft, but you cannot change its name or Context Type.

To publish a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the Workflow Configuration page, select a workflow configuration.
- 4) When you are ready to enable the workflow configuration and complete workflow, select **Publish**.

If you publish a workflow configuration that already has a published version, a new version of the configuration is created. The new version becomes the version that is active and available for use with workflow designs. Any workflow configuration that uses an old version of a workflow design will continue to use that version of the design, but any new configuration will use the latest version of the design.

You can view all versions of the configuration on the Workflow Configuration page. Old versions are listed beneath the latest version.

Workflow Configuration Wizard Fields

View the following topics for details on how to configure fields for task, manual decision, and automatic decision workflow steps:

- Workflow Settings Fields (on page 59)
- ▶ Task Step Options Fields (on page 60)
 - Form Task Options Fields (on page 61)
 - Sub-workflow Task Options Fields (on page 63)
 - Update Field Task Options Fields (on page 65)
 - Portfolio Refresh Task Options Fields (on page 67)
 - Service Task Options Fields (on page 68)
- Manual Decision Options Fields (on page 70)
 - Manual Decision Task Options Fields (on page 70)
- Automatic Decision Options Fields (on page 72)

Related Video Tips

Workflow Notification Video

Workflow Settings Fields

These settings are for the entire workflow configuration. They appear when you select the name of the workflow design on the **Configure Workflow** step of the Workflow Configuration Wizard.

Configuration Name

The unique name of the workflow configuration. This name is used to label the complete workflow on the Start Workflow page.

Description

A description of the workflow configuration.

Sharing Method

Specifies how the workflow configuration and complete workflow is accessible in child workspaces.

Manual: The workflow configuration can be shared with child workspaces individually, using the **Assign** control in child workspaces. This is the default setting.

Automatic: The workflow configuration and complete workflow is accessible in all child workspaces.

Context Type

Determines the kinds of objects that the workflow configuration can run against.

Project: The workflow configuration can only run against projects or project proposals.

Portfolio: The workflow configuration can only run against portfolio planning periods or scenarios.

Change Order: The workflow configuration can only run against change orders.

Risk: The workflow configuration can only run against risks.

Budget: The workflow configuration can only run against budgets.

Submittal: The workflow configuration can only run against submittals.

Context Object

The specific project, project proposal, portfolio planning period, scenario, risk, or other object that the workflow runs against. You do not need to specify the context object of a workflow that you expect to run against more than one object.

Associate Forms

This setting determines when the workflow is associated with all of the forms it uses. There are two choices:

At Start: The workflow links to the latest version of each form it uses every time the workflow starts. This is the default setting.

At Publish: The workflow will link to each version of each form that it was linked to when the workflow was published

Manager

The user or users who manage the workflow. The workflow manager can be one or more users, one or more groups, or a combination of users and groups. Workflow managers can monitor workflows and complete tasks on behalf of workflow task performers. They can also be assigned workflow tasks.

Set as Workflow Initiator

When this option is selected, the user who initiated the workflow will automatically be assigned to manage it.

Duration

The amount of time a workflow has to be fully completed. If a workflow is not completed within its specified duration, then the system notifies the workflow manager and marks the workflow as overdue on the Monitor Workflow page.

Task Step Options Fields

These options appear when you select a task step on the **Configure Workflow** step of the Workflow Configuration Wizard. They control basic step characteristics.

Context Type

The kind of object that the step runs against.

Budget: The step runs against budgets.

Budget Change: The step runs against budget changes. **Budget Transfer**: The step runs against budget transfers. **Change Order**: The step runs against change orders.

Changes: The step runs against contract changes.

Commitment: The step runs against contract commitments.

Contract: The step runs against contracts.

Idea: The step runs against ideas.

Portfolio: The step runs against portfolio planning periods and scenarios.

Potential Change Order: The step runs against contract potential change orders.

Project: The step runs against projects and project proposals.

Risk: The step runs against risks.

Same as workflow: The step runs against the same object that the workflow runs against.

Submittal: The step runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, scenario, or risk that the step runs against. If you do not specify a context object here, the context object is the object that the workflow runs against.

Same as Workflow

For steps that have a Context Type value of Budget but exist in Workflows that have a Context Type value of Project, this option specifies whether the step runs against the project that the workflow runs against.

Duration

The amount of time that performers of tasks associated with the step have to complete them. If task performers do not complete their tasks on a step within the duration specified for that step, then the system notifies the workflow manager and task performers. It also marks the task as overdue. Step duration is independent of workflow duration.

Error Resolution

Specifies how the system handles errors on the step. Different types of steps support different error modes. There are two possible error modes:

Stop Workflow: When selected, any errors in the step automatically stop the workflow. The workflow log includes the sudden stop and the error that caused it.

Notify Manager: When selected, the workflow manager is notified of any errors in the step and assigned a task to determine how the workflow should proceed. The workflow does not continue until the workflow manager resolves the error.

Form Task Options Fields

These fields appear when you select a form task on the **Configure Workflow** step of the Workflow Configuration Wizard.

Context Type

The kind of object that the task runs against. Which values are available in this field varies by task type.

Budget: The task runs against budgets.

Budget Change: The task runs against budget changes. **Budget Transfer**: The task runs against budget transfers. **Change Order**: The task runs against contract change orders.

Changes: The task runs against contract changes.

Commitment: The task runs against contract commitments.

Contract: The task runs against contracts.

Idea: The task runs against ideas.

Portfolio: The task runs against the portfolio planning period specified in the Context Object field. You can also set Form tasks, Update Field tasks, and Sub-workflow tasks with a context type of Portfolio to run against objects that are included in the specified portfolio by setting the Task Distribution field to any value other than Context Object. With the Context Type field set to Portfolio and the Task Distribution field set to any value other than Context Object, the task becomes an iterative task, which means it is copied and repeated for all relevant objects in the specified portfolio.

Potential Change Order: The task runs against potential change orders for contracts.

Project: The task runs against projects.

Risk: The task runs against risks.

Same as sub-workflow (Sub-workflow tasks only): The task runs against the same object that the sub-workflow runs against.

Same as step: The task runs against the same object that the associated step runs against.

Submittal: The task runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, or scenario that the task runs against. If you do not specify a context object here, the context object is the object that the related step runs against.

Same as Step

For tasks that have a Context Type value of Budget but exist in workflows or steps that have a Context Type value of Project, this option specifies whether the task runs against the project that the step runs against.

Task Distribution

This field is only available if the Context Type value of the task is Portfolio. It determines whether the task runs against a portfolio planning period specified in the Context Object field or against objects that are included in the specified portfolio.

Context Object: The task runs against the portfolio planning period specified by the Context Type or Context Object field.

Selected Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Selected or Forced In in the portfolio planning period specified by the Context Type or Context Object field.

Candidate Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Unselected in the portfolio planning period specified by the Context Type or Context Object field.

All Scenarios: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Scenarios for Review: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Form

The portfolio or project form that the performer completes to complete the task.

Preassign Performer

Determines whether the system or the performer of the previous task chooses the performer of the task.

Yes: The system determines the task performer based on its other settings.

No: The performer of the previous task determines which user or user group performs this task. Which user or user group the performer of the previous task can choose is determined by the value of the Performers field. The Performer field can include users, user groups, or a combination of both. If it includes a user group, then the performer of the previous task may choose the entire group or an individual user from the group when specifying who should complete this task.

Performers

The user or users who perform the workflow task.

You can choose from three types of values in the Create Performer List dialog box:

Groups: Includes user groups created by your manager or administrator.

Users: Includes individual users.

User Fields: Includes users who are assigned to specific user fields in the object that the corresponding task runs against. For example, if the task runs against a commitment record, the User Fields option enables you to select the user assigned to the **To Field** in this record.

The **All** option enables you to choose any combination of user types.

Set as Workflow Initiator

When this option is selected, the user who initiated the workflow will automatically be assigned as the performer of the task.

Completion Policy

This field is only available if the **Performer** field includes a group of more than one user. It determines how many performers from the selected user group must complete the task. This field has three possible values:

Any: Any assigned performer can complete the task to advance the workflow.

At Least Half: At least half of the assigned performers must complete the task to advance the workflow.

All: All assigned performers must complete the task to advance the workflow.

Confirm Task Completion

When set to **Yes**, the system prompts performers to verify that they have properly completed the task before it marks the task as complete.

When set to **No**, the system will not ask performers to confirm that they have properly completed the task.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles.

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Preassign Notification Recipient

Use this field to specify whether the system or the task performer chooses who is notified when the task is completed.

If set to Yes, the system determines who is notified based on workflow configuration settings. If set to No, the task performer determines who is notified. Which users the task performer can choose is determined by the users selected in the Notify field.

Sub-workflow Task Options Fields

These fields appear when you select a sub-workflow task on the **Configure Workflow** step of the Workflow Configuration Wizard.

Context Type

The kind of object that the task runs against. Which values are available in this field varies by task type.

Budget: The task runs against budgets.

Budget Change: The task runs against budget changes. **Budget Transfer**: The task runs against budget transfers. **Change Order**: The task runs against contract change orders.

Changes: The task runs against contract changes.

Commitment: The task runs against contract commitments.

Contract: The task runs against contracts.

Idea: The task runs against ideas.

Portfolio: The task runs against the portfolio planning period specified in the Context Object field. You can also set Form tasks, Update Field tasks, and Sub-workflow tasks with a context type of Portfolio to run against objects that are included in the specified portfolio by setting the Task Distribution field to any value other than Context Object. With the Context Type field set to Portfolio and the Task Distribution field set to any value other than Context Object, the task becomes an iterative task, which means it is copied and repeated for all relevant objects in the specified portfolio.

Potential Change Order: The task runs against potential change orders for contracts.

Project: The task runs against projects.

Risk: The task runs against risks.

Same as sub-workflow (Sub-workflow tasks only): The task runs against the same object that the sub-workflow runs against.

Same as step: The task runs against the same object that the associated step runs against.

Submittal: The task runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, or scenario that the task runs against. If you do not specify a context object here, the context object is the object that the related step runs against.

Same as Step

For tasks that have a Context Type value of Budget but exist in workflows or steps that have a Context Type value of Project, this option specifies whether the task runs against the project that the step runs against.

Task Distribution

This field is only available if the Context Type value of the task is Portfolio. It determines whether the task runs against a portfolio planning period specified in the Context Object field or against objects that are included in the specified portfolio.

Context Object: The task runs against the portfolio planning period specified by the Context Type or Context Object field.

Selected Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Selected or Forced In in the portfolio planning period specified by the Context Type or Context Object field.

Candidate Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Unselected in the portfolio planning period specified by the Context Type or Context Object field.

All Scenarios: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Scenarios for Review: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Sub-workflow

The workflow that starts when the sub-workflow task is initiated.

Host Workflow waits for completion of Sub-workflow

Determines whether the primary workflow will pause until the sub-workflow is complete or if it will continue running while the sub-workflow runs.

Sub-workflow Manager

The user or users who can monitor the sub-workflow and complete tasks on behalf of performers assigned to sub-workflow tasks.

Confirm Task Completion

When set to **Yes**, the system prompts performers to verify that they have properly completed the task before it marks the task as complete.

When set to **No**, the system will not ask performers to confirm that they have properly completed the task.

Instance Name

The name of the sub-workflow instance. This is a user-defined value that is set when the sub-workflow task is configured.

Update Field Task Options Fields

These fields appear when you select an update field task on the **Configure Workflow** step of the Workflow Configuration Wizard.

Context Type

The kind of object that the task runs against. Which values are available in this field varies by task type.

Budget: The task runs against budgets.

Budget Change: The task runs against budget changes. **Budget Transfer**: The task runs against budget transfers. **Change Order**: The task runs against contract change orders.

Changes: The task runs against contract changes.

Commitment: The task runs against contract commitments.

Contract: The task runs against contracts.

Idea: The task runs against ideas.

Portfolio: The task runs against the portfolio planning period specified in the Context Object field. You can also set Form tasks, Update Field tasks, and Sub-workflow tasks with a context type of Portfolio to run against objects that are included in the specified portfolio by setting the Task Distribution field to any value other than Context Object. With the Context Type field set to Portfolio and the Task Distribution field set to any value other than Context Object, the task becomes an iterative task, which means it is copied and repeated for all relevant objects in the specified portfolio.

Potential Change Order: The task runs against potential change orders for contracts.

Project: The task runs against projects.

Risk: The task runs against risks.

Same as sub-workflow (Sub-workflow tasks only): The task runs against the same object that the sub-workflow runs against.

Same as step: The task runs against the same object that the associated step runs against.

Submittal: The task runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, or scenario that the task runs against. If you do not specify a context object here, the context object is the object that the related step runs against.

Same as Step

For tasks that have a Context Type value of Budget but exist in workflows or steps that have a Context Type value of Project, this option specifies whether the task runs against the project that the step runs against.

Select Performer

Specifies the user on behalf of whom the system updates the Update Field. When the system performs the update action, the user specified by this setting will receive a notification, and the Monitor Workflow page will show that the task was completed on behalf of this performer.

Task Distribution

This field is only available if the Context Type value of the task is Portfolio. It determines whether the task runs against a portfolio planning period specified in the Context Object field or against objects that are included in the specified portfolio.

Context Object: The task runs against the portfolio planning period specified by the Context Type or Context Object field.

Selected Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Selected or Forced In in the portfolio planning period specified by the Context Type or Context Object field.

Candidate Projects: The task becomes an iterative task, which means it is copied and repeated for all projects marked Unselected in the portfolio planning period specified by the Context Type or Context Object field.

All Scenarios: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Scenarios for Review: The task becomes an iterative task, which means it is copied and repeated for all scenarios in the portfolio planning period specified by the Context Type or Context Object field.

Update Field

The field that is updated when the workflow reaches the update field task.

Update Value

The value that is automatically added to the field selected in the **Update Field** field when the workflow reaches the update field task.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Preassign Notification Recipient

Use this field to specify whether the system or the task performer chooses who is notified when the task is completed.

If set to Yes, the system determines who is notified based on workflow configuration settings. If set to No, the task performer determines who is notified. Which users the task performer can choose is determined by the users selected in the Notify field.

Portfolio Refresh Task Options Fields

These fields appear when you select a portfolio refresh task on the **Configure Workflow** step of the Workflow Configuration Wizard.

Context Type

The kind of object that the task runs against. Portfolio refresh tasks can only run against portfolios.

Context Object

The specific portfolio or portfolios that are refreshed when the portfolio refresh task runs.

Portfolio Project Criteria

Enables you to specify how the app will use the fields you list in the **Field** area to determine which portfolios in the workspace are refreshed.

- All of the following: Only portfolios that use all of the fields listed in the Field area to determine which projects they include will be refreshed.
- Any of the following: Portfolios that use any of the fields listed in the Field area to determine which projects they include will be refreshed.

Field

Portfolios in the workspace that use the fields you choose here to determine which projects they include will be refreshed.

For example, if **Portfolio Project Criteria** is set to *All of the following*, and if you add the **Status** and **Start Date** fields here, then all of the portfolios in the workspace that use both the Status and Start Date fields to determine which projects they include will be refreshed. Similarly, if the **Portfolio Project Criteria** is set to *Any of the following*, and if you add the **Status** and **Start Date** fields here, then any of the portfolios in the workspace that use either the Status or Start Date field to determine which projects they include will be refreshed.

Use the **Context** menu to add or remove fields.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles.

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Preassign Notification Recipient

Use this field to specify whether the system or the task performer chooses who is notified when the task is completed.

If set to Yes, the system determines who is notified based on workflow configuration settings. If set to No, the task performer determines who is notified. Which users the task performer can choose is determined by the users selected in the Notify field.

Service Task Options Fields

These fields appear when you select a service task on the **Configure Workflow** step of the Workflow Configuration Wizard.

Context Type

The kind of object the service task runs against.

Context Object

The specific object on which the service task runs.

Performer

The service task will run on behalf of the user configured.

Services

Which service task will run:

Recalculate Costs: This service will run the activities page cost recalculation for a project.

- If a project object has been selected during workflow or task configuration, the Schedule/Scenario field appears when Recalculate Costs service task is selected. This field enables configuration of a specific schedule or scenario against which recalculate costs should be done. The default setting will always be set to current schedule.
- Run Report: This service will automatically run a report. When Run Report service task is selected, the following fields appear:
 - Select Report to Run: Select an existing report in the Select Report dialog, and then select Select.
 - Layout: Select a layout for the selected report. The default layout is Primavera Cloud Layout.
 - Orientation: Select Portrait or Landscape orientation for the report.
 - Include child Workspaces: Select this option to include data from child workspaces in the report.
 - Output Format: Select XLS, XLSX, HTML, PDF, RTF or XML.
 - **Delivery Type**: Email is the default delivery type for the report. Select the **\mathbb{B}** icon to configure the To, CC, BCC, and Subject fields.
- **Synchronization**: This service will run synchronization for a project. When Synchronization service task is selected, two fields appear: Select Application and Business Flow.
 - **Select Application**: The application, P6 EPPM or Primavera Gateway, the synchronization should be run against.
 - Business Flow: The business flow to run in a project or workspace.

Workflow waits for service to complete (available for Recalculate Costs and Synchronization Services)

When this option is selected, the workflow will wait for the service task to complete before progressing. Once the service task is marked complete, the workflow will progress according to the configuration.

- **Recalculate Costs**: The workflow will wait for the recalculation to complete. Once the recalculation is complete for the project, the task will be marked complete.
- **Synchronization**: The workflow will wait for the project or workspace synchronization to complete. Once the synchronization is complete for the project or the workspace, the task will be marked complete.

Note: A service task can complete with or without errors. Service tasks completed with errors will still progress the workflow. If a service task is unable to find its configured object (for example a project that has been moved), the service task will be skipped and the workflow will progress.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles.

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Manual Decision Options Fields

These options appear when you select a manual decision step on the **Configure Workflow** step of the Workflow Configuration Wizard. They control basic step characteristics.

Duration

The amount of time that performers of tasks associated with the step have to complete them. If task performers do not complete their tasks on a step within the duration specified for that step, then the system notifies the workflow manager and task performers. It also marks the task as overdue. Step duration is independent of workflow duration.

Error Resolution

Specifies how the system handles errors on the step. Different types of steps support different error modes. There are two possible error modes:

Stop Workflow: When selected, any errors in the step automatically stop the workflow. The workflow log includes the sudden stop and the error that caused it.

Notify Manager: When selected, the workflow manager is notified of any errors in the step and assigned a task to determine how the workflow should proceed. The workflow does not continue until the workflow manager resolves the error.

Manual Decision Task Options Fields

These options appear when you select a manual decision task on the **Configure Workflow** step of the Workflow Configuration Wizard. They control basic characteristics of the decision.

Context Type

The kind of object that the task runs against. Which values are available in this field varies by task type.

Budget: The task runs against budgets.

Budget Change: The task runs against budget changes. **Budget Transfer**: The task runs against budget transfers. **Change Order**: The task runs against contract change orders.

Changes: The task runs against contract changes.

Commitment: The task runs against contract commitments.

Contract: The task runs against contracts.

Idea: The task runs against ideas.

Portfolio: The task runs against the portfolio planning period specified in the Context Object field. You can also set Form tasks, Update Field tasks, and Sub-workflow tasks with a context type of Portfolio to run against objects that are included in the specified portfolio by setting the Task Distribution field to any value other than Context Object. With the Context Type field set to Portfolio and the Task Distribution field set to any value other than Context Object, the task becomes an iterative task, which means it is copied and repeated for all relevant objects in the specified portfolio.

Potential Change Order: The task runs against potential change orders for contracts.

Project: The task runs against projects.

Risk: The task runs against risks.

Same as sub-workflow (Sub-workflow tasks only): The task runs against the same object that the sub-workflow runs against.

Same as step: The task runs against the same object that the associated step runs against.

Submittal: The task runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, or scenario that the task runs against. If you do not specify a context object here, the context object is the object that the related step runs against.

Same as Step

For tasks that have a Context Type value of Budget but exist in workflows or steps that have a Context Type value of Project, this option specifies whether the task runs against the project that the step runs against.

Form (Optional)

Specifies a form that the performer can view or complete before answering the decision question.

Preassign Performer

Determines whether the system or the performer of the previous task chooses the performer of the task.

Yes: The system determines the task performer based on its other settings.

No: The performer of the previous task determines which user or user group performs this task. Which user or user group the performer of the previous task can choose is determined by the value of the Performers field. The Performer field can include users, user groups, or a combination of both. If it includes a user group, then the performer of the previous task may choose the entire group or an individual user from the group when specifying who should complete this task.

Performers

The user or users who perform the workflow task.

You can choose from three types of values in the **Create Performer List** dialog box:

Groups: Includes user groups created by your manager or administrator.

Users: Includes individual users.

User Fields: Includes users who are assigned to specific user fields in the object that the corresponding task runs against. For example, if the task runs against a commitment record, the User Fields option enables you to select the user assigned to the **To Field** in this record.

The All option enables you to choose any combination of user types.

Set as Workflow Initiator

When this option is selected, the user who initiated the workflow will automatically be assigned as the performer of the task.

Voting Type

In manual decisions assigned to user groups, this field specifies how performers' votes determine which path the workflow follows. If performers' votes make it impossible for the vote to meet the criteria of the selected voting type, then the system will assign the workflow manager an override task, which will require the workflow manager to decide which option the workflow proceeds with.

Any: As soon as any performer completes the manual decision task, the workflow proceeds with the option that the user chooses.

Plurality: The workflow follows the path associated with the option that receives the most votes. The system can determine this when all performers have voted or as soon as a tie is impossible and at least one performer has voted. If there is a tie between at least two options after all performers have voted, then the workflow manager is assigned an override task.

Majority: The workflow proceeds with the option that receives more than half of the votes as soon as more than half of the performers in the user group have chosen that option. If no option has more than half of the votes after all performers have voted, or if the system determines that it is impossible for any option to receive more than half of the votes, then the workflow manager is assigned an override task.

Unanimity: If all performers who are assigned the manual decision task select the same option, then the workflow proceeds with the path associated with that option. If any two performers select different options, then the workflow manager is immediately assigned an override task. The workflow does not proceed until all performers have voted for the same option or until the workflow manager completes the override task.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles.

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Preassign Notification Recipient

Use this field to specify whether the system or the task performer chooses who is notified when the task is completed.

If set to Yes, the system determines who is notified based on workflow configuration settings. If set to No, the task performer determines who is notified. Which users the task performer can choose is determined by the users selected in the Notify field.

Automatic Decision Options Fields

These options appear when you select any automatic decision step on the **Configure Workflow** step of the Workflow Configuration Wizard. They control basic step characteristics.

Context Type

The kind of object that the step runs against.

Same as Workflow: The step runs against the same kinds of objects as the associated workflow.

Project: The step runs against projects and project proposals.

Portfolio: The step runs against portfolio planning periods and scenarios.

Change Order: The step runs against change orders.

Risk: The step runs against risks.

Budget: The step runs against budgets. **Submittal**: The step runs against submittals.

Context Object

The specific project, project proposal, portfolio planning period, scenario, or risk that the step runs against. If you do not specify a context object here, the context object is the object that the workflow runs against.

Conditions Field

The field that the system evaluates to determine which exit option to choose in an automatic decision step.

Error Resolution

Specifies how the system handles errors on the step. Different types of steps support different error modes. There are two possible error modes:

Stop Workflow: When selected, any errors in the step automatically stop the workflow. The workflow log includes the sudden stop and the error that caused it.

Notify Manager: When selected, the workflow manager is notified of any errors in the step and assigned a task to determine how the workflow should proceed. The workflow does not continue until the workflow manager resolves the error.

Notify

Use this field to specify which users who are not already involved in the workflow should be notified when the task is completed. You can include any combination of users, groups, or roles.

Include Workflow Initiator

When selected, the workflow initiator is notified when the task is completed, regardless of whether the workflow initiator is also selected in the Notify field.

Preassign Notification Recipient

Use this field to specify whether the system or the task performer chooses who is notified when the task is completed.

If set to Yes, the system determines who is notified based on workflow configuration settings. If set to No, the task performer determines who is notified. Which users the task performer can choose is determined by the users selected in the Notify field.

Edit a Workflow Configuration

After you publish a workflow configuration, you can edit most of its properties to create a new draft but you cannot change its context type.

To edit a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the **Workflow Configuration** page, select a workflow configuration.
- 4) In the Workflow Configuration Wizard, edit properties about the workflow and its steps and tasks.
- 5) Select **Validate** to make sure there are no errors or critical issues that prevent the workflow from running properly.
- 6) In the Validation Errors and Warnings dialog box, select Close.
- 7) Select **Save** or **Publish**.

If you save or publish a workflow configuration that has already been published, a new version is created.

Duplicate a Workflow Configuration

You can duplicate a workflow configuration to copy all of its settings into a new configuration.

To duplicate a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the **Workflow Configuration** page, select the **© Context** menu next to a workflow configuration name, and then select **Duplicate**.

The new workflow configuration is identical to the original workflow configuration, but the name of the new configuration ends with "-1," and it is marked as Unpublished. You can edit these and other properties in the Workflow Configuration Wizard.

Delete a Workflow Configuration

You can delete workflow configurations that will no longer be used.

Note: You cannot recover a deleted workflow configuration. Deleting a workflow configuration permanently removes it from the database.

To delete a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.

3) On the **Workflow Configuration** page, select the **© Context** menu next to a workflow design name, and then select **Delete**.

Update the Owning Workspace of a Workflow Configuration

Update the owning workspace of a workflow configuration to move it to another workspace that you are assigned. If you move the configuration to a workspace that is higher in the workspace hierarchy, it will be available to more workspaces.

To update the owning workspace of a workflow configuration:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the **Workflow Configuration** page, select the **Context** menu next to a workflow configuration name, and then select **Change Owning Workspace**.
- 4) In the **Select Workspace** dialog box, select an owning workspace, and then select **Select**.
- 5) Select Save.

Assign a Workflow Configuration from a Parent Workspace

On the Workflow Configuration page, you can assign workflow configurations from parent workspaces to the open child workspace. This makes them available for use in the child workspace, but they can still only be edited in their owning workspaces.

To assign a workflow configuration from a parent workspace:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the Workflow Configuration page, select Assign. The Assign Workflow Configuration dialog box lists all available workflow configurations in all workspaces to which the child workspace is subordinate.
- 4) In the **Assign Workflow Configuration** dialog box, select all workflow configurations that you want to be available for the child workspace.
- 5) Select **Assign**.

Now you can use the workflow configuration in the child workspace, but you can't edit it. To do that, you must update its owning workspace. See *Update the Owning Workspace of a Workflow Configuration* (on page 75).

Set a Workflow to Start When a Project Alert is Initiated or a Portfolio Threshold is Reached

You can set a workflow configuration to run automatically when a project alert is initiated or a project or portfolio threshold is reached.

You can only set a workflow to begin in response to an alert or threshold if the alert or threshold has already been set up in a project or portfolio. You can have a workflow start when an existing alert is initiated or threshold is reached, but you cannot create a new alert or threshold in the Workflows and Forms app.

Note: Any alert or threshold that will be used to start a workflow should be configured to notify at least one user when it is initiated. Recommended users include the project manager or portfolio manager.

Note: The project threshold for a portfolio planning period can be used to trigger a workflow for any project that meets the configured threshold conditions.

To set a workflow to start in response to an alert or threshold:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the **Workflow Configuration** page, select a row for a project or portfolio workflow configuration.
 - Do not open it, just select the row to highlight it.
 - The **Context Type** value of the configuration must be **Project** or **Portfolio**.
- 4) On the Alerts & Thresholds detail window, select Add.
- 5) When configuring a **Project** workflow, you can select **Threshold** or **Alert**. The project threshold for a portfolio planning period can be used to trigger a workflow for any project that meets the below threshold conditions.

Note: Only configurations without validation errors will be started based on trigger conditions from alerts and thresholds.

6) In the **Configure Event** dialog box, complete these fields:

For **Project** workflows:

- **Event Name**: The name of the event. You cannot have two identical event names for one workflow configuration.
- Description: A description of the event.
- **Project**: The name of the project that will be monitored for the event.
- Portfolio Planning Period: The name of the portfolio and planning period that will be monitored for the event. This field is only available when Threshold is selected.
- Field: The field within the selected project that will be monitored for the event.
- Alert: The alert that, when initiated, will also start the workflow configuration.
- ▶ **Threshold**: The threshold that, when reached, will start the workflow configuration. This field is only available when **Threshold** is selected.

For **Portfolio** workflows:

- **Event Name**: The name of the event. You cannot have two identical event names for one workflow configuration.
- **Description**: A description of the event.

- Portfolio Planning Period: The name of the portfolio and planning period that will be monitored for the event.
- **Scenario**: The scenario that will be monitored for the event.
- Field: The field within the selected scenario that will be monitored for the event.
- **Threshold**: The threshold that, when reached, will start the workflow configuration.

Note: A workflow started on an object by an event cannot be started again by any event on the same object until that workflow finishes in status completed, stopped, or failed.

7) Select **OK**.

Now, when the chosen alert is initiated or threshold reached, the workflow will begin automatically.

Depending on your workflow configuration permissions, you can edit, delete, disable, or enable a workflow alert or threshold in the **© Context** menu in the **Alerts & Thresholds** detail window.

Viewing and Completing Workflow Tasks

The Inbox page displays all of the workflow tasks that you are assigned as a performer or manager. Complete the workflow tasks that you are assigned as a performer to advance the workflow instances that include those tasks. You may also complete the workflow tasks that you are assigned as a manager on behalf of task performers, as long as you have access to the objects associated with those tasks.

View and Complete a Workflow Task

You can view and complete the workflow tasks that you are assigned as a performer or manager. You can also save pending form tasks and print information about your workflow tasks.

To view and complete a workflow task:

- 1) In the header, select **Q** View notifications.
- 2) In the **Notifications** panel, select **D View All in Inbox**.

 On the **Inbox** page, workflow tasks are indicated by the workflow icon.
- 3) On the **Inbox** page, select a filter.

The Manager filter shows workflow tasks that you are assigned as a manager.

4) Select a workflow task row to view details about that task.

To view the workflow configuration associated with the task, select **Configuration**. To open a printable report with information about the task, select **Print**. Depending on your security privileges and how the task is configured, you can choose whether to include the following kinds of information in the printable report:

- **Form**: The form associated with the task. This option is only available if there is a form associated with the task.
- **Task Summary**: Details about the task and its associated step and workflow.
- Workflow Diagram: A diagram of the workflow that includes the task.
- Attachments: All documents associated with the workflow. This option is only available if at least one document is associated with the workflow.
- 5) To perform the workflow task, select **Review**.
- 6) In the form page or decision dialog box, enter the required data or make the required decision.
 - If you are working on a form task or a manual decision task that has a form, select **Task Instructions** to view more information about the task.
 - If you have entered or edited data in a form, you may select **Save Draft** to save your changes and make the task available with the **Drafts** view on the **Inbox** page.
- 7) Select **Submit** (if you are working on a form task) or **Complete** (if you are working on a manual decision task).

Add, Link, or Unlink a Document with a Document Grid

Some form tasks may require you to use document grids. Document grids allow you to add new documents to objects that tasks run against or to link existing Primavera Cloud documents to running workflows. Whether you can use a document grid to add or link documents depends on how the document grid is configured and your security privileges.

When you use a document grid to add a document, that document becomes available alongside other documents in the folder structure of the object that the task runs against. In order for you to add documents to an object, you must have the required document security privileges for that object.

When you use a document grid to link a document, information about that document is visible on the document grid for subsequent tasks that use the form in the same context. In order for you to link documents, you must have the required security privileges for those documents.

This topic is meant to guide you through the basic document grid procedures. You should always refer to the **Task Instructions** provided in your tasks for specific requirements.

To add a document to a Primavera Cloud folder using a document grid:

- 1) On the document grid, select + Add.
 - The + Add option is only available if the document grid lets you add new documents.
- 2) In the **Select a folder** area of the **Add Document** dialog box, select the folder to which you want to add the new document.
- 3) In the **Add Document** dialog box, select **... Browse**, and then choose the document that you want to add.
- 4) In the Add Document dialog box, select Upload.
 - When you select **Submit** to complete the form, the new document is added to the folder that you specify in the Add Document dialog box.

To link an existing document to the workflow using a document grid:

- 1) On the document grid, select **DLink**.
 - The **Link** option is only available if the document grid lets you link documents.
- 2) In the **Associate Documents** dialog box, select the document that you want to link to the workflow.
- 3) In the **Associate Documents** dialog box, select **OK**.

When you select **Submit** to complete the form, information about the linked document will be available in subsequent workflow tasks that include the document grid.

To unlink a document in a document grid:

1) On the document grid, select **Settings** for the document that you want to unlink, and then select **Unlink**.

Note: The Unlink option is available for both added and linked documents. You can only unlink documents that you added or linked. Unlinking any document only unlinks it from the workflow. Unlinking an added document does not remove it from the database. It only prevents the document from appearing on the document grid in subsequent tasks that include the form.

Use a Map to Specify a Project Location

Some forms may require you to use maps to specify project locations.

To use a map to specify the location of a project:

- 1) Select a place on the map.
 - The system automatically updates the coordinates (Latitude and Longitude) and as much other location information as possible.
- 2) Select Locate.

The map zooms in on the specified coordinates.

Reassign a Workflow Task

You can reassign workflow tasks that you are assigned as a manager to other users. In order for any user to use a workflow task to view or update an object, the user must have the required security privileges to it.

To reassign a workflow task:

- 1) In the header, select **Q** View notifications.
- 2) In the **Notifications** panel, select **D** View All in Inbox.
- 3) On the **Inbox** page, select the **Manager** filter.
- 4) Select a task.
- 5) In the **Assign To** field, select ... **Select**.
- 6) In the **Select** dialog box, select the user that you want to assign as the task performer.

7) Select Select.

Custom Workflow Assignments

Primavera Cloud has built-in workflows that manage certain objects and actions.

While these built-in workflows are great to get started, you don't have to keep using them. For some objects and actions, you can replace the default workflows with your own custom workflows. For example, for budgets, you can set a custom workflow to run every time a user submits a budget.

In order for a workflow to be used in place of a default workflow, it has to have the right Context Type value. For example, only workflows with a Context Type value of Budget can be used to replace a default budget workflow.

These objects support custom workflows:

- Budgets
- Budget changes
- Budget transfers
- Changes
- Change orders
- Commitments
- Contracts
- Ideas
- Potential Change Orders
- Projects
- Project Risks
- Submittals

Workspace-level and Project-level Workflow Assignments

After you have set up a custom workflow with the right context type to replace a default workflow, you must decide whether to replace it at the project level or the workspace level.

Project-level Custom Workflow Assignments

You can assign workflows at the project level to take the place of default system workflows or workflows that exist at the workspace level. There are two ways a workflow can be assigned at the project level. 1) You can assign the workflow directly to objects and actions at the project level, or 2) You can assign the workflow to objects and actions at the workspace level, and then you can have all projects and child workspaces within that workspace inherit the workflow assignment.

Either way, workflow assignments must eventually make it to projects in order to have any effect. So, the easiest and most direct way to assign custom workflows for one project is at the project level.

Assign a Custom Workflow at the Project Level (on page 82)

Workspace-level Custom Workflow Assignments

If you have several projects in a workspace and you want a workflow assignment to take effect for all of the projects in that workspace, then you can assign a workflow at the workspace level. After that, you can have all of the projects in the workspace inherit the workflow assignment.

This is a convenient way to assign workflows for multiple projects at once, but in order for a workspace-level workflow assignment to take effect for a project within the workspace, you need the privileges required to edit that project.

Assign a Custom Workflow at the Workspace Level (on page 81)

Assign a Custom Workflow at the Workspace Level

In the Workflows and Forms app, you can create custom workflows that let you specify exactly how these objects are managed:

- Budgets
- Budget changes
- Budget transfers
- Changes
- Change orders
- Commitments
- Contracts
- Ideas
- Potential Change Orders
- Projects
- Project Risks
- Submittals

After you have created a custom workflow, you can assign it to an object and action at the workspace level to have your custom workflow run every time the action occurs in a project within the workspace.

Note: In order for workspace-level workflow assignments to take effect in projects, you must have the privileges required to edit the projects. Similarly, in order for workspace-level workflow assignments to take effect in child workspaces, the corresponding workflows must be shared with the child workspaces.

To assign a custom workflow at the workspace level:

- 1) Navigate to an object configuration page (see page 149).
- 2) On the **Workflow Actions** tab, find the row that represents the action to which you want to assign the custom workflow.
- 3) In the corresponding Workflow field, choose a custom workflow.
 Only forms with the relevant Context Type value are available here. For example, you can only assign a Risk workflow to manage risks.
- 4) Select **B** Save.

- 5) In the **Confirm** dialog box, select **Yes** if you want all workspaces, projects, and programs within the workspace to inherit the selected workflow, if applicable.
- 6) In **Primavera Cloud**, in the **Summary & Settings** panel, select **X Close**.

Assign a Custom Workflow at the Project Level

In the Workflows and Forms app, you can create custom workflows that let you specify exactly how these objects are managed:

- Budgets
- Budget changes
- Budget transfers
- Changes
- Change orders
- Commitments
- Contracts
- Ideas
- Potential Change Orders
- Projects
- Project Risks
- Submittals

After you have created a custom workflow, you can assign it to an object and action at the project level to have your custom workflow run every time the action occurs in a project.

To assign custom workflows at the project level:

- 1) Navigate to the project settings page (see page 147).
- 2) On the **Workflow Actions** tab, select the object to which you want to assign a custom workflow.
- 3) In the table, select the action to which you want to assign a custom workflow. The actions available here correspond to the selected object.
- 4) In the corresponding **Workflow** field, choose a custom workflow.
- 5) Save your changes:
 - a. Select Save.
 - b. In the Summary & Settings panel, select \times Close.

Now, whenever the chosen action occurs for the chosen project, your custom workflow runs instead of the default workflow.

Customize the System Idea Workflow

In Primavera Cloud, certain objects and actions are managed by built-in workflows. One of these is the workflow that runs when a user submits a new idea. This workflow routes the new idea among users who are likely to be involved in the process to decide whether the idea should be implemented. By creating a custom workflow to take its place, you can have the idea routed among different users, change which fields are required at certain stages, and specify how the system itself should manage the proposed idea at each stage.

The process to customize a system workflow design has four basic parts:

- 1) Duplicate the system workflow design.
 - This step isn't strictly necessary in the root workspace, where you can directly edit system workflow designs to make new, customized versions. Duplicating system workflow designs first, however, enables you to customize them in any workspace where you have the required security permissions. It also allows you to more easily preserve default system workflow design settings.
- 2) Edit and publish the new duplicate workflow design.
- 3) Configure the new duplicate workflow design to create a complete workflow.
- 4) In **Summary & Settings**, set the newly customized workflow as the workflow associated with the action.

Duplicate the system workflow design

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Design.
- 3) On the **Workflow Design** page, find the workflow design titled **Idea Workflow Design** (System).
- 4) Next to the **Idea Workflow Design (System)** row, select the **© Context** menu, and then select **Duplicate**.
 - This creates a new customizable workflow design titled **Idea Workflow Design (System)-1**. (Notice the "-1".)
- 5) Select Save.

Edit and publish the new duplicate workflow design

- 1) On the **Workflow Design** page, open the new **Idea Workflow Design (System)-1** workflow design.
 - Either select the title of the workflow design, or select **Edit** from the **Context** menu by the workflow design row.
- 2) In the Workflow Design Editor, customize the workflow design.
 - Here you can add *task steps* (see "Add a Task Step" on page 23), manual decision steps (see "Add a Manual Decision Step" on page 27), and automatic decision steps (see "Add an Automatic Decision Step" on page 28). You can also delete steps and the connector lines (see "Delete a Workflow Step or a Connector Line" on page 29) that define how steps are related.

For example, you may want to add a new manual decision step that presents the idea to a user who isn't normally involved in the idea proposal process. Similarly, you may want to add an automatic decision step that checks a particular field in ideas before deciding how to proceed.

- 3) When you are done modifying the workflow design, select **Validate** to check it for errors and possible issues.
- 4) Select **Publish**.

Configure the new duplicate workflow design to create a complete workflow

- 1) If you're still in the **Form Editor**, select **X Close** so you can access the sidebar.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the Workflow Configuration page select + Add.
- 4) In the **Select Workflow** step of the wizard, select the customized workflow design that you published, and then select **Next**.
- 5) In the **Configure Workflow** step of the wizard, define the properties of the workflow and each workflow element.
 - Select **Show Diagram** to view the workflow diagram alongside the list of steps and tasks. Select the name of the workflow design, each step, and each task to view and edit its properties. Every task step and manual decision step must be assigned to at least one user, every update field task must have fields and field values defined, and the workflow itself must be assigned a manager.
 - See **Workflow Configuration** (on page 55) for more information about editing workflow configurations.
- 6) When you are done editing the configuration settings for the workflow, select **Validate** to check the workflow configuration for errors and warnings.
- 7) Select **Publish**.

Set the new, customized workflow as the workflow associated with the action

- If you're still on the Configure Workflow page, select X Close so you can access the sidebar.
- 2) In the sidebar, select **Summary & Settings**.
- 3) On the Summary & Settings menu, select Defaults & Options, and then select Idea.
- 4) On the **Defaults & Options: Idea** page, select the **Workflow Actions** tab.
- 5) In the **Workflow** field of the **Submit** row, select the customized workflow that you published.
- 6) Select Save.
- 7) In the **Summary & Settings** panel, select **X Close**.

Now, when users add ideas in this workspace, the customized workflow will run instead of the default workflow.

Custom Form Assignments

In Primavera Cloud, custom forms can be used to replace default forms and "system" forms.

Default Forms

Default forms are part of the Primavera Cloud user interface and can be replaced with custom forms. They include—

- ▶ Project Details Form: This page appears when you select Summary & Settings in a project and then select the Details page.
- ▶ Add Project Proposal form: This form appears when a user creates a project proposal.
- ▶ Portfolio Details Form: This page appears when you select Summary & Settings in a portfolio and then select the Details page.

System Forms

System forms are pre-built forms that appear during various workflow processes. These forms can be viewed on the Form Design page, where you can duplicate and customize them. System forms include—

- New Project Form (System): This form includes all of the information required to set up a project from an approved idea through the Idea Workflow Configuration.
- **Propose Risk (System)** form: This is the form that users fill out when they propose program or project risks in the Risk app.
- ▶ Add Program Form (System): This form appears when a user adds a program to the program list.
- **Edit Program Form (System)**: This form appears when a user edits a program.
- Add Idea Form (System): This form appears when a user adds an idea to the idea list.
- ▶ Edit Idea Form (System): This form appears when a user edits an idea on the Idea Home page.
- ▶ Idea Amend Form (System): This form is linked to the Edit Form task in the Edit Idea Step of the Idea Workflow Configuration (System).
- ▶ Idea Decision Form (System): This form is linked to the Accept, Reject or Review Idea task in the Owner Review Idea Step of the Idea Workflow Configuration (System).
- ▶ Idea Owner Form (System): This form is linked to the Idea Owner Form task in the Assign Owner Step of the Idea Workflow Configuration (System).

For example, when a user proposes a Risk in a brand new Primavera Cloud deployment, the default Propose Risk form asks the user for basic information. On the Summary & Settings page, you can replace this default form with a custom risk form that includes the fields of your choosing.

In order for a custom form to be used in place of a default form, it has to have the right Context Type value. For example, only forms with a Context Type value of Risk can be used to replace a default risk proposal form.

Workspace-level and Project-level Form Assignments for Risk Forms

After you have set up a custom form with the right context type to replace a default form for risks, you must decide whether to replace it at the project level or the workspace level.

Project-level Custom Form Assignments

You can assign forms at the project level to take the place of default system forms or forms that exist at the workspace level. There are two ways a workflow can be assigned at the project level.

- You can assign the form directly to objects and actions at the project level, or
- You can assign the form to objects and actions at the workspace level, and then you can have all projects within that workspace inherit the form assignment.

Either way, form assignments must eventually make it to projects in order to have any effect. So, the easiest and most direct way to assign custom workflows for one project is at the project level.

Assign a Custom Risk Form at the Project Level (on page 86)

Workspace-level Custom Form Assignments

If you have several projects in a workspace and you want a form assignment to take effect for all of the projects in that workspace, then you can assign a form at the workspace level. After that, you can have all of the projects in the workspace inherit the form assignment.

This is a convenient way to assign forms for multiple projects at once, but in order for a workspace-level form assignment to take effect for a project within the workspace, you need the privileges required to edit that project.

Assign a Custom Risk Form at the Workspace Level (on page 87)

Assign a Custom Risk Form at the Project Level

At the project level, you can determine which form users fill out when they create risk proposals for a project. This can be the default risk proposal form, which includes basic information, or a custom risk proposal form created in the Form Editor.

To assign a custom form at the project level:

- 1) Navigate to the project settings page (see page 147).
- 2) On the **Forms** tab, select **Risk**.
- 3) In the **Propose** row, in the **Form** field, choose a custom form.
- 4) This is the form users will fill out when they propose a new risk for a project.
- 5) Save your changes:
 - a. Select Save.
 - b. In the **Summary & Settings** panel, select **X Close**.

Now, whenever the action in the Action Name field occurs for the chosen object, the application will present the specified custom form instead of the default form.

Assign a Custom Risk Form at the Workspace Level

At the workspace level, determine which forms users fill out when they create risk proposals for the projects and programs in the workspace. You can assign separate forms to projects and programs. This can be the default risk proposal form, which includes basic information, or a custom risk proposal form created in the Form Editor. You can choose for all projects and programs in the workspace to inherit the forms set at the workspace level. You can also change the selected form for individual projects or programs in that object's settings.

Note: In order for workspace-level form assignments to take effect in projects, you must have the privileges required to edit the projects. Similarly, in order for workspace-level form assignments to take effect in child workspaces, the corresponding forms must be shared with the child workspaces.

To assign a custom risk form at the workspace level:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, select **Summary & Settings**.
- 3) In the **Defaults & Options** list, select **Risk**.
- 4) Select the **Forms** tab, and then select **Program** or **Project**.
- 5) In the corresponding Form field, choose a custom form.
 Only forms with the relevant Context Type value are available here. For example, you can only assign a Risk form to replace a Risk page.
- 6) In the **Confirm** dialog box, select **Yes** if you want all workspaces and projects or programs within the workspace to inherit the selected form.
- 7) Select Save.
- 8) In the **Summary & Settings** panel, select **X Close**.

Set the Add and Edit Idea Forms

By default, Primavera Cloud provides the forms that users use to add or edit ideas. In the Workflows and Forms app, you can create forms to replace these default forms. After that, you can choose which forms appear when users add or edit ideas.

To specify which forms appear when users add or edit ideas:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, select **Summary & Settings**.
- 3) On the Summary & Settings menu, select Defaults & Options, and then select Idea.
- 4) On the **Defaults & Options: Idea** page, select the **Forms** tab. This tab shows a list of forms used at various stages in an idea's lifecycle.

- Add: The form to use when users add an idea to this workspace. Users must complete this form in order to add a new idea to the workspace.
- Edit: The form to use when users modify or view idea details. This form will be displayed on the Idea Home page.

Forms that are appended with "(System)" are provided by the application.

- 5) In the row that represents the form that you want to replace, specify the custom form.
- 6) Select Save.

In the **Summary & Settings** panel, select **X Close.Note**: Only published forms with a **Context Type** of **Idea** can be configured for use with the ideas. Forms must also contain all required fields for the action they are associated with, and they must be valid.

Set the Add Project Proposal Form

When users create project proposals, a form appears that enables them to enter all of the required information. You can replace the default Add Project Proposal form with a form that you create in the Workflows and Forms app.

Prerequisites

Before you can set a custom Add Project Proposal form, it must meet the following criteria:

Access: You must have access to the form.

Context type: The form must have a **Context Type** value of **Project**.

Required fields: The form must include the following fields:

- ▶ ID
- Name
- Project Currency
- Status
- Workspace

All of these fields must be editable. This means the fields and the form itself must have the **Editable data** option selected.

Invalid elements: The form must not include the following form elements:

- Document grids
- Cover images
- Evaluation tables
- Cost UDFs

When you have a valid form, follow these steps to use it in place of the default Add Project Proposal form:

- 1) Navigate to the Project configuration page (see page 149).
- 2) Select the **Forms** tab.

- 3) In the **Add Project Proposal** row, in the **Form** field, select the form that you want to use instead of the default Add Project Proposal form.
- 4) Save your changes:
 - a. Select Save.
 - b. In the **Summary & Settings** panel, select **X Close**.

Now, when a user adds a project proposal, the custom form that you selected will be used in place of the default proposal form.

Note: When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Set the Details Page for Projects

Use Forms to Create a Custom Project Details Page Video

By default, the Details page shows basic information about the project. But you can replace the default Details page for all projects in a workspace with a custom form designed in the Form Editor.

Before you can set a custom Details page, you must have access to a published form that has a Context Type value of Project.

To choose a form as the Details page for all projects in a workspace:

- 1) Navigate to the Project configuration page (see page 149).
- 2) Select the **Forms** tab.
- 3) In the **Project Details Form** row, in the **Form** field, select the form that you want to use instead of the default Details page.
- 4) Select Save.
- 5) In the Inherit Form Mapping dialog box, select Yes or No.
 If the current form is already assigned in child workspaces, select Yes if you want to replace it with the new one. Otherwise, select No.
- 6) In the **Summary & Settings** panel, select **X Close**.

Now users who open the Details page for any project in this workspace will see the form you chose here, not the default Details page.

Set the Details Page for Portfolios

By default, the Details page shows basic information about the portfolio. But you can replace the default Details page for all portfolios in a workspace with a custom form designed in the Form Editor.

Before you can set a custom Details page, you must have access to a published form that has a Context Type value of Portfolio.

To choose a form as the Details page for all portfolios in a workspace:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, select **Summary & Settings**.
- 3) On the Summary & Settings menu, select Defaults & Options, and then select Portfolio.
- 4) Select the **Forms** tab.
- 5) In the **Portfolio Details Form** row, in the **Form** field, select the form that you want to use instead of the default Details page.
- 6) Select Save.
- 7) In the Inherit Form Mapping dialog box, select Yes or No.
 If the current form is already assigned in child workspaces, select Yes if you want to replace it with the new one. Otherwise, select No.
- 8) In the **Summary & Settings** panel, select **X Close**.

Now users who open the Details page for any portfolio in this workspace will see the form you chose here, not the default Details page.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page.

Creating a Custom General Form

You can create forms that users can access from the Forms app any time in an open idea, portfolio, program, or project. This is helpful if you want team members to see specific information that doesn't appear in any default views or pages.

Note: When a form contains Scenario Type fields for Content Type: Portfolio, the form cannot be used to replace the default Details page. When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

To create a custom general form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, select + **Add** to open a new form in the **Form Editor**.
- 4) In the **Form Editor**, create a form.

Make sure the **Context Type** value for the form is set to the object the form is for: **Idea**, **Portfolio**, **Program**, or **Project**. Add whichever fields you want users to be able to view in a single form. For example, you may create a form called "Project Dates" that includes every date-related field for projects.

Note: Restricted configured fields in portfolio, program, and project forms show as non-editable for users that do not have Edit selected for the Edit Restricted Configured Fields workspace privilege.

For more information on setting up forms and using the Form Editor, refer to the topics in the *Form Design* (on page 33) section. When you are satisfied with the form, select **Publish**, and then select **X Close** to return to the **Form Design** page.

5) (Optional) On the **Form Design** page (the page that lists all of the forms in the workspace), find the new form and select the **Available on Forms List** option so users can access the form.

After you select this option, users who view the object in the workspace will be able to access the form in the **Forms** app available in the app sidebar.

Accessing a Custom General Form

If you or a manager created a custom form and marked it **Available on Forms List**, then you can access it from the **Forms** app when you open an idea, portfolio, program, or project.

To access a custom general form:

- 1) In the workspace where the form was created, open an idea, portfolio, program, or project.
- 2) In the sidebar, hover over Forms and select Forms List.

 This page lists all published forms that have been marked Available on Forms List in the workspace.
- On the Forms List page, select a form to view it.
 The custom form is populated with information from the open object.

Customize the System Add Idea Form

In Primavera Cloud, custom forms can be used to replace some default pages and forms. Among these is the form that appears when users add an idea. By default, the add idea form asks the user who is setting up the new idea to provide some basic information. By creating a custom form to take its place, you can have the idea creator provide different information, change which fields are required, and leave out fields that may not be important.

The process to customize a system form has three basic parts:

1) Duplicate the system form.

This step isn't strictly necessary in the root workspace, where you can directly edit system forms to make new, customized versions. Duplicating system forms first, however, enables you to customize them in any workspace where you have the required security permissions. It also allows you to more easily preserve default system form settings.

- 2) Edit and publish the new duplicate form.
- 3) In **Summary & Settings**, set the newly customized form as the form associated with the **Add** idea action.

Duplicate the system form

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the Form Design page, find the form titled Add Idea Form (System).
- 4) Next to the **Add Idea Form (System)** row, select the **© Context** menu, and then select **Duplicate**.
 - This creates a new customizable form titled **Add Idea Form (System)-1**. (Notice the "-1".)
- 5) Select **Save**.

Edit and publish the new duplicate form

- 1) On the Form Design page, open the new Add Idea Form (System)-1 form.
 - Either select the title of the form, or select **Edit** from the **Ochrex** menu by the form row.
- 2) In the **Form Editor**, customize the form, but don't change its **Context Type** value from Idea or remove any required fields.
 - Here you can edit *properties for the entire form* (see "*Properties: Form Area Fields*" on page 38), *add elements to the form* (see "*Add Form Elements to a Form*" on page 38), *remove elements from the form* (see "*Delete a Form Element*" on page 51), and customize form elements.
 - For example, you can change the name of the form. If you've already highlighted a form element like a field, select the outermost edge of the form to reveal the **Properties: Form** area. Then, in the **Name** field, replace the default name, **Add Idea (System)-1** with a name of your choice. Something like **Custom Add Idea** form might make sense.
 - Another common customization is to make certain fields required. For example, you may want to require any user who adds an idea to also explain its benefits. To do this, select the **Benefits** field. Then, in the **Properties: Field** area, make sure the **Required** option is checked.
- 3) Select **Validate** to check the form for errors and possible issues.
 - This step helps you make sure the form includes all required fields and is free of errors.
- 4) Select **Publish**.
 - Select **Yes** in the **New Version** dialog box.

Set the new, customized form as the form associated with the Add idea action

- 1) If you're still in the **Form Editor**, select **X Close** so you can access the sidebar.
- 2) In the sidebar, select **Summary & Settings**.

- 3) On the Summary & Settings menu, select Defaults & Options, and then select Idea.
- 4) On the **Defaults & Options: Idea** page, select the **Forms** tab.
- 5) In the **Form** field of the **Add** row, select the customized form that you published.
- 6) Select Save.
- 7) In the **Summary & Settings** panel, select **X Close**.

Now, when users add ideas in this workspace, they are presented with the newly customized form.

Creating a Project Proposal Approval Workflow: Example

This chapter explains how to create an example workflow that manages project proposals. While this example may not represent the practices in your organization, it can help you better understand workflows in Primavera Cloud.

Before you begin—

- Make sure you have access to a workspace where you can safely create example workflows, forms, project proposals, and projects.
- In the workspace where you plan to work through this example, make sure you have these workspace-level security permissions:
 - Workflow Design: Add, Edit, Delete, View
 - Workflow Configuration: Add, Edit, Delete, View
 - Forms: Add, Edit, Delete, View
 - Projects: Add
 - Project Proposals: Add
- ▶ To perform the manual approval task in this workflow, you must be assigned the Approver security role in any project proposal that you set this workflow to run against.

After you are sure these requirements are satisfied, follow all of the steps in this example in order. When you are done, you should have a fully functional workflow that you can run against a sample project proposal.

- 1) Identifying and Understanding the Business Process (on page 94)
- 2) Create a Workflow Design (on page 94)
- 3) Create the Required Forms (on page 102)
- 4) Create the Workflow Configuration (on page 112)
- 5) Set the Workflow as the Default Project Proposal Workflow (on page 117)
- 6) Run the Workflow against a Sample Project Proposal (on page 118)

Identifying and Understanding the Business Process

Before you create any workflow in Oracle Primavera Cloud, you should analyze the business process that you want it to manage. Here are some questions you should consider:

- When does the process begin?
- What are the end results of the process?
- Who is involved in the process?
- Which factors influence the steps in the process?

In many industries and organizations, creating and approving a new project proposal requires input from different employees or groups. Characteristics of the proposal—things like cost, duration, and risk level—often influence which steps are required to get it approved and which employees or groups are involved. These factors make the proposal approval process a good workflow candidate.

For this example, say we run a construction company where some employees are in charge of writing and submitting proposals. These proposals include important information like total budget, start date, and risk level. Low and medium-risk proposals get approved automatically, but when someone submits a high-risk proposal, or if someone fails to specify the risk level in a proposal, we send it to a reviewer. Then, this reviewer uses all of the other information the submitter provided to decide whether to approve or reject the proposal.

While this process seems clear enough for a small group, it can easily get out of hand with many employees and proposals. Fortunately, we can use workflows and forms in Primavera Cloud to automate it.

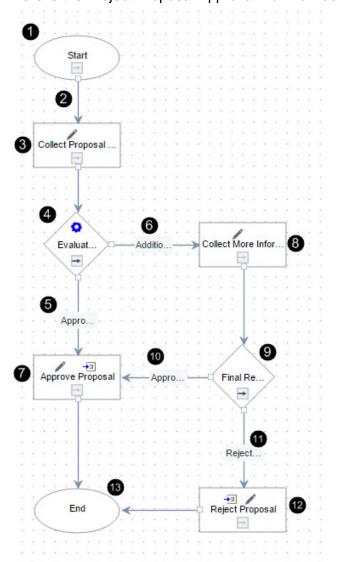
First, let's answer our planning questions:

- When does the process begin?
 - This process begins whenever someone creates a project proposal.
- What are the end results of the process?
 - This process ultimately results in an approved or rejected proposal, but with many employees and proposals, it can also result in a lot of frustration. Automating this process with a workflow should make it more reliable, resulting in more peace of mind for the organization.
- Who is involved in the process?
 - Each time someone submits a proposal, two employees are involved: The one who submits the proposal and, if it turns out to be a high-risk proposal, the one who reviews it. If you follow this example and run the workflow against a sample proposal, you will assume both roles.
- Which factors influence the steps required to complete the process?
 In our imaginary construction company, risk is an important factor. Whether a proposal needs to be reviewed depends on its risk level.

Now that we understand the process, we can start to represent it with a workflow design.

Create a Workflow Design

Workflow designs are like flowcharts. They broadly define the logic of workflows and help you visually arrange steps and the tasks that steps contain.



Here is the Project Proposal Approval workflow design you will create in this example:

Workflow Example Image Highlights

Item	Description
1	Start step: Every workflow starts with the Start step.
2	Connector line : Connector lines define relationships between steps. When connector lines come from decision steps (the diamond-shaped steps), they correspond to options that the system or a user chooses. When they come from the start step or task steps (the rectangular steps), they only define the path of the workflow.

Item	Description
3	Collect Proposal Data task step: When a user creates a project proposal and assigns the Project Proposal Approval workflow to run against it, this step assigns the proposal creator a form task to provide more information. Among this information is the Risk Level value. This value determines the subsequent path of the workflow.
4	Evaluate Risk Level automatic decision step: In this automatic decision step, the system evaluates the Risk Level associated with the proposal. If the Risk Level field is set to Low, Very Low, or Medium, the workflow follows the Approve Proposal exit option (5). If the Risk Level field is set to High, Very High, or Not Identified, the workflow follows the Additional Information Required exit option (6).
5	Approve Proposal exit option: The workflow automatically chooses this exit option if the Risk Level field in the project proposal is set to Low, Very Low, or Medium.
6	Additional Information Required exit option: The workflow automatically chooses this exit option if the Risk Level field in the project proposal is set to High, Very High, or Not Identified.
7	Approve Proposal task step : In this task step, the system changes the status of the proposed project to Planned. It also sends the proposal creator a notification that the proposal has been approved.
8	Collect More Information task step : If the Risk Level field of the proposal is set to High, Very High, or Not Identified, this task step assigns the proposal creator a form task to provide more information.
9	Final Review manual decision step: In this manual decision step, the proposal approver reviews information about the proposal and then approves or rejects it. If the approver approves the proposal, the workflow follows the Approve
	Proposal exit option (10). If the approver rejects the proposal, the workflow follows the Reject Proposal exit option (11).
10	Approve Proposal exit option : This is the exit option the workflow follows if the approver approves the proposal.
11	Reject Proposal exit option : This is the exit option the workflow follows if the approver rejects the proposal.
12	Reject Proposal task step: In this task step, the system changes the status of the proposed project to Rejected and sends the proposal creator a notification that the proposal has been rejected.
13	End step: Every workflow ends with the end step.
_	

The following tasks describe the procedures for creating the Project Proposal Approval workflow design in the Workflow Design Editor.

- 1) Adding the Workflow Design and Setting its General Properties (on page 97)
- 2) Adding the Collect Proposal Data Task Step (on page 97)
- 3) Adding the Evaluate Risk Level Automatic Decision Step (on page 98)
- 4) Adding the Approve Proposal Task Step (on page 98)
- 5) Adding the Collect More Information Task Step (on page 99)
- 6) **Defining the Paths from the Evaluate Risk Level Automatic Decision Step** (on page 99)
- 7) Adding the Final Review Manual Decision Step (on page 100)
- 8) Adding the Reject Proposal Task Step (on page 100)
- 9) Defining the Paths from the Final Review Manual Decision Task Step (on page 101)
- 10) Validating and Publishing the Workflow Design (on page 101)

Adding the Workflow Design and Setting its General Properties

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the Project Proposal Approval Workflow design and set its general properties:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Workflow Design**.
- 3) On the **Workflow Design** page, select **+ Add**.
- 4) In the **Workflow** area, in the **Name** field, enter *Project Proposal Approval*.
- 5) In the **Description** field, enter *Approval process for project proposals*.
- 6) Select Save.

Adding the Collect Proposal Data Task Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have a workflow design, you can add the Collect Proposal Data task step. This step includes one task, the Collect Proposal Details form task. This form task requires the user to provide basic information about the proposed project.

To add the Collect Proposal Data task step:

- In the Workflow Design toolbar, select □ Add a task step and drag it onto the workflow design canvas.
- 2) Position the new step below the **Start** step icon.
- 3) In the **Step** area, in the **Name** field, enter *Collect Proposal Data*.
- 4) In the **Description** text area, enter *Collect basic information about the project proposal.*

- 5) In the **Step** area, select **+ Add ▼**, and then select **Form Task**.
- 6) In the Form Task Details dialog box, in the Name field, enter Collect Proposal Details.
- 7) In the **Instructions** text area, enter *Enter the information required for this proposal.*
- 8) Select OK.
- 9) In the **Start** step icon, select **Draw connector line**, and then select the **Collect Proposal Data** step icon.
- 10) Select Save.

Adding the Evaluate Risk Level Automatic Decision Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The Evaluate Risk Level step is an automatic decision step, meaning it automatically selects one of multiple paths based on the value of a field.

The Evaluate Risk Level step checks the value of the Risk Level field in the proposal. Then, it uses this value to determine how the workflow proceeds.

To add the Evaluate Risk Level automatic decision step:

- 1) In the Workflow Design toolbar, select **Add an automatic decision step** and drag it onto the workflow design canvas.
- 2) Position the new step below the **Collect Proposal Data** step icon.
- 3) In the Automatic Decision area, in the Name field, enter Evaluate Risk Level.
- 4) In the **Description** field, enter the following text: *Proposals with a Risk Level value of Very Low, Low, or Medium are automatically approved. All others require additional information.*
- 5) In the Collect Proposal Data step icon, select Draw connector line, and then select the Evaluate Risk Level step icon.
- 6) Select **Save**.

Adding the Approve Proposal Task Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The Approve Proposal task step includes two tasks, a form task and an update field task. The form task notifies a user of your choice that the proposal has been approved. The update field task automatically changes the Status of the proposal to Planned.

To add the Approve Proposal task step:

- In the Workflow Design toolbar, select □ Add a task step and drag it onto the workflow design canvas.
- 2) Position the new step above the **End** step.
- 3) In the **Step** area, in the **Name** field, enter *Approve Proposal*.
- 4) In the **Description** text area, enter Automatically approve low and medium-risk proposals.

- 5) In the **Step** area, select **+ Add ▼**, and then select **Form Task**.
- 6) In the **Form Task Details** dialog box, in the **Name** field, enter *Notification Proposal Approved*.
- 7) In the **Instructions** field, enter *Notification to inform owner the proposal has been approved.*
- 8) Select OK.
- 9) In the **Step** area, select **+ Add ▼**, and then select **Update Field Task**.
- 10) In the **Update Field Task Details** dialog box, in the **Name** field, enter *Approve Proposal*.
- 11) In the **Description** field, enter *Change proposal status to Planned*.
- 12) Select OK.
- 13) In the **Approve Proposal** step icon, select **Draw connector line**, and then select the **End** step icon.
- 14) Select Save.

Adding the Collect More Information Task Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

If the Risk Level of the proposal is set to High, Very High, or Not Identified, then the workflow starts the Collect More Information task step. It requires a user to provide more information.

To add the Collect More Information task step:

- 1) In the Workflow Design toolbar, select the □ **Add a task step** icon and drag it onto the workflow design canvas.
- 2) Position the new step to the right of the **Evaluate Risk Level** step.
- 3) In the **Step** area, in the **Name** field, enter *Collect More Information*.
- 4) In the **Description** text area, enter *Collect additional information about the proposed project.*
- 5) Select + Add ▼, and select Form Task.
- 6) In the Form Task Details dialog box, in the Name field, enter Provide More Information.
- 7) In the **Instructions** text area, enter *Provide more information about this project*.
- 8) Select **OK**.
- 9) Select Save.

Defining the Paths from the Evaluate Risk Level Automatic Decision Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

By now you should have two alternative options that follow the Evaluate Risk Level step.

To define the paths from the Evaluate Risk Level automatic decision step:

1) In the Evaluate Risk Level step icon, select Draw connector line, and then select the Collect More Information task step icon.

- 2) In the Evaluate Risk Level step icon, select Draw connector line, and then select the Approve Proposal task step icon.
- 3) Select the Evaluate Risk Level step.
- 4) In the **Automatic Decision** area, in the **Exit Options** area, select **Option 1**, and then enter *Additional Information Required*.
- 5) Select **Option 2**, and then enter *Approve Proposal*.
- 6) Select Save.

Adding the Final Review Manual Decision Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The Final Review step requires a user to approve or reject the proposal.

To add the Final Review manual decision step:

- In the Workflow Design toolbar, select the
 [△] Add a manual decision step icon and drag it onto the workflow design canvas.
- 2) Position the new step below the **Collect More Information** step icon and to the right of the **Approve Proposal** step icon.
- 3) In the Manual Decision area, in the Name field, enter Final Review.
- 4) In the **Description** text area, enter *Final review of the proposal*.
- 5) In the **Task Name** field, enter *Final Review Decision*.
- 6) In the **Instructions** text area, enter *Review this proposal, and then mark it Approved or Rejected.*
- 7) In the **Decision Question** field, enter *Do you want to Approve or Reject this proposal?*
- 8) In the Collect More Information task step icon, select Draw connector line.
- 9) Select the **Final Review** manual decision step.
- 10) Select Save.

Adding the Reject Proposal Task Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

If the approver rejects the proposal during the Final Review step, this step changes the status of the proposal to Rejected and notifies the proposal creator.

To add the Reject Proposal task step:

- In the Workflow Design toolbar, select the □ Add a task step and drag it onto the workflow design canvas.
- 2) Position the new step to the right of the **End** step icon and below the **Final Review** step icon.
- 3) In the **Step** area, in the **Name** field, enter *Reject Proposal*.

- 4) In the **Description** field, enter *This proposal has been rejected*.
- 5) In the **Step** area, select + **Add** \vee , and then select **Update Field Task**.
- 6) In the **Update Field Task Details** dialog box, in the **Name** field, enter *Reject Proposal*.
- 7) In the **Description** field, enter *This proposal has been rejected*.
- 8) Select OK.
- 9) In the **Step** area, select **+ Add ▼**, and then select **Form Task**.
- 10) In the **Form Task Details** dialog box, in the **Name** field, enter *Notification Proposal Rejected*.
- 11) In the **Instructions** text area, enter *Notification to inform the proposal owner that it has been rejected.*
- 12) Select OK.
- 13) In the Reject Proposal task step icon, select Draw connector line.
- 14) Select the **End** step icon.
- 15) Select Save.

Defining the Paths from the Final Review Manual Decision Task Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have created the two alternative steps that follow the Final Review step, you can define the paths from it.

To define the paths from the Final Review manual decision step:

- 1) In the Workflow Design Editor, in the **Final Review** step icon, select **Draw connector line**.
- 2) Select the Approve Proposal task step.
- 3) In the Final Review step icon, select Draw connector line.
- 4) Select the **Reject Proposal** step icon.
- 5) Select the **Final Review** step.
- 6) In the **Manual Decision** area, in the **Exit Options** table, select **Option 1** and enter *Approve Proposal*.
- 7) Select **Option 2** and enter *Reject Proposal*.
- 8) Select Save.

Validating and Publishing the Workflow Design

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

You must validate and publish the workflow design before you or other users can create a configuration for it.

To validate and publish the Project Proposal Approval workflow:

- In the Workflow Design Editor, select Validate.
 The Validation Errors and Warnings dialog box should list no warnings or errors.
- 2) In the Validation Errors and Warnings dialog box, select Close.
- 3) In the Workflow Design Editor, select **Publish**.

Create the Required Forms

In Oracle Primavera Cloud workflows, forms are used to present or collect data about projects, project proposals, portfolio planning periods, and scenarios. In the Workflows and Forms app, forms are created on the Forms page, and they can be reused in multiple workflows.

To create the forms used in the Project Proposal Approval workflow:

Notes:

- This topic is part of the Creating a Project Proposal Approval Workflow: Example series.
- This example is designed to show you how forms can be reused and modified, so create these forms in the order shown here.
- 1) Create the Proposal Initiation Form (on page 102)
- 2) Create the Proposal Details Form (on page 105)
- 3) Create the Proposal Summary Form (on page 108)
- 4) Create the Proposal Approval Notification Form (on page 109)
- 5) Create the Proposal Rejected Notification Form (on page 111)

Create the Proposal Initiation Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

This form is associated with the Collect Proposal Data task step. It requires a user to enter specific identification and budgeting information about it.

To create the Proposal Initiation Form:

- 1) Adding the Proposal Initiation Form (on page 102)
- 2) Adding Tabs to the Proposal Initiation Form (on page 103)
- 3) Adding Form Elements to the General Tab (on page 104)
- 4) Adding Form Elements to the Details Tab (on page 104)
- 5) Validating and Publishing the Proposal Initiation Form (on page 105)

Adding the Proposal Initiation Form

Note: This topic is part of the Creating a Project Proposal Approval

Workflow: Example (on page 93) series.

Before you can define the tabs, fields, and other components of any form, you must add it and set its general properties.

To add the Proposal Initiation Form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**..
- 3) On the **Form Design** page, select + **Add** to open a new form in the Form Editor.
- 4) In the **Properties: Form** area, in the **Name** field, enter *Proposal Initiation Form*.
- 5) In the **Description** field, enter *Use this form to enter information about the proposal.*
- 6) In the Context Type list, select Project.
 Select Yes in the Change Context Type dialog box. This dialog box is only relevant if you have already added fields to the form.
- 7) Select Save.

Note: When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario. or Cost UDFs.

Adding Tabs to the Proposal Initiation Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have created the Proposal Initiation Form and defined its general properties, you can add tabs to organize its components.

To add the General and Details tabs:

- 1) In the Form toolbar, select the **BTabs** icon and drag it onto the form canvas.
- 2) In the Properties: Form area, in the Tabs list, change Tab 1 to General.
- 3) Change **New Tab** to *Details*.
- 4) Select Save.

Adding Form Elements to the General Tab

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the General tab:

- 1) Select the **General** tab.
- 2) In the Form toolbar, select the Input Field icon and drag it onto the form canvas.
- 3) In the **Select Fields** dialog box, In the **Available** list, find and select the **Name** field, and then select > **Move Right**.

Usually, the fastest way to find a field is by typing it into the Search bar above the Available list.

- 4) Find and select the **Description** field, and then select > **Move Right**.
- 5) Find and select the **Status** field, and then select > **Move Right**.
- 6) Select Select.
- 7) Select the Name field.
- 8) In the **Properties: Field** area, deselect **Editable data**.
- 9) Select the Status field.
- 10) In the Properties: Field area, deselect Editable data.
- 11) Select Save.

Adding Form Elements to the Details Tab

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the Details tab:

- 1) Select the **Details** tab.
- 2) In the Form toolbar, select the **OInstruction Text** icon and drag it onto the form canvas.
- 3) In the **Properties: Instructions** tab, in the text area, enter *Provide risk, cost, and scheduling information about the proposal.*

When users receive the form in workflow tasks, this instruction text will help them understand what to do with it.

- 4) On the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 5) In the **Select Fields** dialog box, in the **Available** list, find and select the **Risk Level** field, and then select > **Move Right**.
- 6) Find and select the **Strategic Priority** field, and then select > **Move Right**.
- 7) Find and select the **Planned Budget** field, and then select > **Move Right**.
- 8) Find and select the **Project Planned Start** field, and then select > **Move Right**.
- 9) Find and select the **Project Planned Finish** field, and then select > **Move Right**.
- 10) Select **Select**.

- 11) Select the Planned Budget field.
- 12) In the **Properties: Field** area, select **Required**.
- 13) Select the Project Planned Start field.
- 14) In the **Properties: Field** area, select **Required**.
- 15) Select the **Project Planned Finish** field.
- 16) In the Properties: Field area, select Required.
- 17) Select Save.

Validating and Publishing the Proposal Initiation Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Just as you should validate workflow designs, you should also validate forms to make sure they run properly.

To validate and publish the Proposal Initiation Form:

- In the Form Editor, select Validate.
 The Validation Errors and Warnings dialog box should not show any errors. It may show some warnings, but these aren't critical.
- 2) In the Validation Errors and Warnings dialog box, select Close.
- 3) Select Publish.
- 4) Select **Yes** in the confirmation dialog box.

Create the Proposal Details Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

This form is associated with the Collect More Information task step. After the Project Proposal Approval workflow determines that the proposal is for a project with a Risk Level value of High, Very High, or Not Identified, a user completes this form to enter additional information about the proposed project.

To create the Proposal Details Form:

- 1) Adding the Proposal Details Form (on page 106)
- 2) Adding Tabs to the Proposal Details Form (on page 106)
- 3) Adding Form Elements to the Overview Tab (on page 107)
- 4) Adding Form Elements to the Cost Estimates Tab (on page 107)
- 5) Adding Form Elements to the Benefits Tab (on page 108)
- 6) Validating and Publishing the Proposal Details Form (on page 108)

Adding the Proposal Details Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the Proposal Details Form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, select + **Add** to open a new form in the Form Editor.
- 4) In the **Properties: Form** area, in the **Name** field, enter *Proposal Details Form*.
- 5) In the **Description** area, enter Form used to collect proposal details.
- In the Context Type list, select Project.
 Select Yes in the dialog box.
- 7) Select Save.

Note: When a form has certain conditions for Content Type: Project, the form cannot be used to create a project or proposal. These conditions are:

- Mandatory fields are missing in the form.
- All fields are individually set as read-only.
- The form is set to read-only (even if fields are editable).
- The following fields are added to the form: Document Grid, Image, Scenario, or Cost UDFs.

Adding Tabs to the Proposal Details Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the tabs to the Proposal Details Form:

- 1) In the Form toolbar, select the **BTabs** icon and drag it onto the form canvas.
- 2) In the **Properties: Form** area, in the **Tabs** list, change **Tab 1** to *Overview*.
- 3) Change **New Tab** to *Cost Estimates*.
- 4) In the Form Editor, next to the **Cost Estimates** tab, select **+ Add Tab**.
- 5) In the **Properties: Form** area, in the **Tabs** list, change **New Tab** to *Benefits*.
- 6) Select Save.

Adding Form Elements to the Overview Tab

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the Overview tab:

- 1) Select the **Overview** tab.
- 2) In the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 3) In the **Select Fields** dialog box, in the **Available** list, find and select the **ID** field, and then select > **Move Right**.
- 4) Find and select the **Name** field, and then select > **Move Right**.
- 5) Find and select the **Description** field, and then select > **Move Right**.
- 6) Find and select the **Project Planned Start** field, and then select > **Move Right**.
- 7) Find and select the **Project Planned Finish** field, and then select > **Move Right**.
- 8) Find and select the **Risk Level** field, and then select > **Move Right**.
- 9) Select Select.
- 10) In the Form Editor, select the **ID** field.
- 11) Under Usage, deselect Editable data.
- 12) Select the Name field.
- 13) In the **Properties: Field** area, under **Usage**, deselect **Editable data**.
- 14) Select Save.

Adding Form Elements to the Cost Estimates Tab

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the Cost Estimates tab:

- 1) Select the **Cost Estimates** tab.
- 2) In the Form toolbar, select the \mathcal{O} Instruction Text icon and drag it onto the form canvas.
- 3) In the **Properties: Instructions** area, in the text area, enter *Enter the total planned budget for this proposal.*
- 4) In the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 5) In the **Select Fields** dialog box, in the **Available** list, find and select the **Planned Budget** field, and then select > **Move Right**.
- 6) Find and select the **Project Planned Start** field, and then select > **Move Right**.
- 7) Find and select the **Project Planned Finish** field, and then select > **Move Right**.
- 8) Select Select.
- 9) In the Form toolbar, select the **OInstruction Text** icon and drag it onto the form canvas.

- 10) In the **Properties: Instructions** area, in the text area, enter the following text: You can review the detailed information using the Cash Flow Link. Proposals must be approved before time-phased estimates can be specified.
- 11) In the Form toolbar, select the **Apperlink** icon and drag it onto the form canvas.
- 12) Select Save.

Adding Form Elements to the Benefits Tab

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the Benefits tab:

- 1) Select the **Benefits** tab.
- 2) In the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 3) In the **Select Fields** dialog box, in the **Available** list, find and select the **Net Present Value** field, and then select > **Move Right**.
- 4) Find and select the Internal Rate of Return field, and then select > Move Right.
- 5) Find and select the **Payback Period** field, and then select > **Move Right**.
- 6) Select Select.
- 7) Select Save.

Validating and Publishing the Proposal Details Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To validate and enable the Proposal Details Form:

- 1) Select Validate.
 - The Validation Errors and Warnings dialog box should show no errors.
- 2) In the Validation Errors and Warnings dialog box, select Close.
- 3) Select **Publish**.
- 4) Select **Yes** in the confirmation dialog box.

Create the Proposal Summary Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

This form is associated with the Final Review manual decision step. It provides details about the proposal that the approver must view before making the final decision to reject or approve it.

To create the Proposal Summary Form:

1) **Duplicating the Proposal Details Form** (on page 109)

2) Adjusting the Proposal Details Duplicate Form Properties (on page 109)

Duplicating the Proposal Details Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To duplicate the Proposal Details Form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over **Workflows and Forms**, and select **Form Design**.
- 3) On the **Form Design** page, hover your cursor to the left of the **Proposal Details Form** row.
- 4) Select the **Context** menu, and then select **Duplicate**.
- 5) Select Save.

Adjusting the Proposal Details Duplicate Form Properties

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To adjust the properties of the duplicate Proposal Details Form and create the Proposal Summary Form:

- 1) On the Form Design page, select Proposal Details Form-1.
- 2) In the **Properties: Form** area, in the **Name** field, enter *Proposal Summary Form*.
- 3) In the **Description** field, enter Form used to review proposal details.
- 4) Under Form Fields, deselect Editable Data.
- 5) Select Save.
- 6) Select **Publish**.
- 7) Select **Yes** in the confirmation dialog box.

Create the Proposal Approval Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

This form is associated with the Approve Proposal task step. It notifies a user when the system or proposal approver approves the proposal.

To create the Proposal Approval Notification Form:

- 1) Adding the Proposal Approval Notification Form (on page 110)
- 2) Adding Form Elements to the Proposal Approval Notification Form (on page 110)
- 3) Validating and Publishing the Proposal Approval Notification Form (on page 111)

Adding the Proposal Approval Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the Proposal Approval Notification form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, select + **Add**.
- 4) In the **Properties: Form** area, in the **Name** field, enter *Proposal Approval Notification*.
- 5) In the **Description** field, enter *Notification that the proposal has been approved.*
- 6) In the Context Type list, select Project.
- 7) Select **Yes** in the confirmation dialog box.
- 8) Under Form Fields, deselect Editable data.
- 9) Select Save.

Adding Form Elements to the Proposal Approval Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the form elements to the Proposal Approval Notification form:

- 1) In the Form toolbar, select the **OInstruction Text** icon and drag it onto the form canvas.
- 2) In the **Properties: Instructions** area, in the text area, enter the following text: *The project proposal has been approved. Its status has been changed to Planned.*
- 3) In the Form toolbar, select the **Input Field** icon and drag it onto the form canvas.
- 4) In the **Select Fields** dialog box, in the **Available** list, find and select the **Workspace** field, and then select > **Move Right**.
- 5) Find and select the **ID** field, and then select > **Move Right**.
- 6) Find and select the **Name** field, and then select > **Move Right**.
- 7) Find and select the **Description** field, and then select > **Move Right**.
- 8) Find and select the **Planned Budget** field, and then select > **Move Right**.
- 9) Find and select the **Project Planned Start** field, and then select > **Move Right**.
- 10) Find and select the **Project Planned Finish** field, and then select > **Move Right**.
- 11) Find and select the **Status** field, and then select > **Move Right**.
- 12) Select Select.
- 13) In the Form toolbar, select the \mathcal{O} Instruction Text icon and drag it onto the form canvas.
- 14) In the **Properties: Instructions** area, in the text area, enter the following text: Select the Cash Flow link to enter Time Phased Budgets for this proposal.

- 15) In the Form toolbar, select the **Apperlink** icon and drag it onto the form canvas.

 The default Linked Page value is Cash Flow. This is the page we want to link to, so leave it how it is.
- 16) Select Save.

Validating and Publishing the Proposal Approval Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To validate and publish the Proposal Approval Notification form:

- 1) Select Validate.
 - The Validation Errors and Warnings dialog box should list no errors.
- 2) In the Validation Errors and Warnings dialog box, select Close.
- 3) Select Publish.
- 4) Select **Yes** in the confirmation dialog box.

Create the Proposal Rejected Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

This form is associated with the Reject Proposal task step. It notifies a user when the approver rejects the proposal.

To create the Proposal Approval Notification Form:

- 1) **Duplicating the Proposal Approval Notification Form** (on page 111)
- 2) Adjusting the Duplicate Proposal Approval Notification Form Properties (on page 112)

Duplicating the Proposal Approval Notification Form

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To duplicate the Proposal Approval Notification form:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Form Design.
- 3) On the **Form Design** page, hover your cursor to the left of the **Proposal Approval Notification** row.
- 4) Select the **©** Context menu, and then select **Duplicate**.
- 5) Select Save.

Adjusting the Duplicate Proposal Approval Notification Form Properties

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To adjust the properties of the duplicate Proposal Approval Notification form and create the Proposal Rejected Notification form:

- 1) On the Forms page, select the Proposal Approval Notification-1 form.
- 2) Select the instruction text at the top of the form.
- 3) In the **Properties: Instructions** area, in the text area, replace the approval message with this message: *The project proposal has been rejected*.
- 4) Select the white background of the form.
- 5) In the **Properties: Form** area, in the **Name** field, enter *Proposal Rejected Notification*.
- 6) In the **Description** field, replace the approval description with this text: *Notification that the proposal has been rejected.*
- 7) Select the instruction text above the **Cash Flow** link.
- 8) Press Delete.
- 9) Select the Cash Flow link.
- 10) Press Delete.
- 11) Select Save.
- 12) Select Publish.
- 13) Select **Yes** in the confirmation dialog box.

Create the Workflow Configuration

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have created the workflow design and all of the required forms, you can create a workflow configuration to assign the forms to the workflow tasks and to set other properties for the workflow.

To create the Project Proposal Approval workflow configuration:

- 1) Adding the Workflow Configuration and Adjusting Settings for the Entire Workflow (on page 113)
- 2) **Configuring the Collect Proposal Data Step** (on page 113)
- 3) Configuring the Evaluate Risk Level Automatic Decision Step (on page 114)
- 4) Configuring the Approve Proposal Step (on page 114)
- 5) **Configuring the Collect More Information Step** (on page 115)
- 6) Configuring the Final Review Step (on page 116)
- 7) Configuring the Reject Proposal Step (on page 116)
- 8) Validating and Publishing the Workflow Configuration (on page 117)

Adding the Workflow Configuration and Adjusting Settings for the Entire Workflow

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To add the workflow configuration and adjust its general settings:

- 1) In the object selector, select a workspace.
- 2) In the sidebar, hover over Workflows and Forms, and select Workflow Configuration.
- 3) On the Workflow Configuration page, select + Add.
- 4) On the **Select Workflow** step of the Workflow Configuration Wizard, in the table that lists available workflow designs, select **Approve Project Proposal**.
- 5) Select Next.
- 6) On the **Configure Workflow** step of the Workflow Configuration Wizard, select **Show Diagram** to view the workflow design.
 - This is not required, but it can help you remember how steps and tasks are related.
- 7) In the workflow element list, select **Project Proposal Approval**.
 - The options area shows options that apply to the entire workflow.
- 8) In the **Workflow Settings** area, in the **Configuration Name** field, enter *Project Proposal Approval*.
- 9) In the **Description** text area, enter *Project Proposal Approval workflow configuration*.
- 10) In the **Context Type** list, select **Project**.
- 11) In the **Manager** field, select ... **Select**.
- 12) In the Create Manager List dialog box, in the Search field, enter your username.
- 13) In the **Available** list, select your username.
- 14) Select > Move Right
- 15) Select Create.

Configuring the Collect Proposal Data Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To configure the Collect Proposal Data step:

- 1) In the workflow element list, expand the **Collect Proposal Data** step.
- 2) Select the **Collect Proposal Details** task.
- 3) In the **Options** area, in the **Form** field, select ... **Select**.
- 4) In the **Select Form (Project)** dialog box, select **Proposal Initiation Form**.
- 5) Select Select.
- 6) In the **Performers** field, select ... **Select**.
- 7) In the **Create Performer List**, in the **Search** field, enter your username.

- 8) In the Available list, select your username.
- 9) Select > Move Right.
- 10) Select Create.
- 11) Select Save.

Configuring the Evaluate Risk Level Automatic Decision Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

To configure the Evaluate Risk Level step:

- 1) In the workflow element list, select the Evaluate Risk Level step.
- 2) In the Automatic Decision Options area, in the Conditions Field field, select ... Select.
- 3) In the Select Field (Project) dialog box, find and select the Risk Level field.
- 4) Select Select.
- 5) In the Automatic Decision Options area, find the Conditions table.
 This table is where you specify which Risk Level value corresponds to which exit option.
- Above the **Conditions** table, select **Add** twice.
 The Conditions table should now have four rows.
- 7) In the top row of the **Conditions** table, change the **Value** field from **Select** to **High**.
- 8) In the top-row Exit Option cell, select Additional Information Required.
- 9) In the second row from the top, change the Value field from Select to Very High.
- 10) In the corresponding Exit Option field, select Additional Information Required.
- 11) In the third row from the top, change the Value field from Select to Not Identified.
- 12) In the corresponding Exit Option field, select Additional Information Required.
- 13) In the last **Exit Option** field, the one with the *Else* value, change the Exit Option from **Select** to **Approve Proposal**.

The step should now be configured to take the Additional Information Required path if the Risk Level value is High, Very High, or Not Identified, and to take the Approve Proposal path if the Risk Level value is anything else.

14) Select Save.

Configuring the Approve Proposal Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The Approve Proposal step includes two tasks: an update field task and a form task. The update field task updates the Status field of the proposal that the workflow runs against, changing its value from Proposal to Planned. The form task shows the proposal owner the Proposal Approval Notification.

To configure the Approve Proposal step:

- 1) In the workflow element list, expand the **Approve Proposal** step.
- 2) Select the Approve Proposal task.
- 3) In the **Options** area, in the **Update Field** field, select ... **Select**.
- 4) In the **Select Field (Project)** dialog box, expand the **General** group and select **Status**.
- 5) Select OK.
- 6) In the Update Value list, select Planned.
- 7) Select Save.
- 8) In the workflow element list, in the **Approve Proposal** step, select the **Notification - Proposal Approved** task.
- 9) In the **Options** area, in the **Form** field, select ... **Select**.
- 10) In the Select Form (Project) dialog box, select Proposal Approval Notification.
- 11) Select **Select**.
- 12) In the **Options** area, in the **Performers** field, select ... **Select**.
- 13) In the Create Performer List dialog box, in the Search field, enter your username.
- 14) Select > Move Right.
- 15) Select Create.
- 16) Select Save.

Configuring the Collect More Information Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

If the proposal has a Risk Level value of High, Very High, or Not Identified, then the proposal owner is assigned the Provide More Information task. This task has the proposal owner provide more information, which is then reviewed by the approver, who makes the final decision to approve or reject the proposal.

To configure the Collect More Information step:

- 1) In the workflow element list, expand the **Collect More Information** step.
- 2) Select the **Provide More Information** task.
- 3) In the **Performers** field, select ... Select.
- 4) In the **Create Performer List** dialog box, in the **Search** field, enter your username.
- 5) In the **Available** area, select your username.
- 6) Select > Move Right.
- 7) Select Create.
- 8) In the **Options** area, in the **Form** field, select ... **Select**.
- 9) In the **Select Form (Project)** dialog box, select **Proposal Details Form**.
- 10) Select Select.
- 11) Select Save.

Configuring the Final Review Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The Final Review step includes one task: Final Review Decision. This task lets the proposal approver decide whether to reject or approve the high-risk (or undefined-risk) proposal. To help the approver make this decision, it also presents the Proposal Summary Form.

To configure the Final Review step:

- 1) In the element list, expand the **Final Review** step.
- 2) In the Final Review step, select the Final Review Decision task.
- 3) In the **Options** area, in the **Form** field, select ... **Select**.
- 4) In the Select Form (Project) dialog box, select Proposal Summary Form.
- 5) Select Select.
- 6) In the Performers field, select ... Select.
- 7) In the Create Performer List dialog box, in the Search field, enter your username.
- 8) In the **Available** area, select your username.
- 9) Select > Move Right.
- 10) Select Create.
- 11) Select Save.

Configuring the Reject Proposal Step

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

The tasks in the Reject Proposal Step do the exact opposite of those in the Approve Proposal Step. They set the Status of the proposal to Rejected and send a notification that it has been rejected.

To configure the Reject Proposal step:

- 1) In the workflow element list, expand the **Reject Proposal** step.
- 2) Select the Reject Proposal task.
- 3) In the **Options** area, in the **Update Field** field, select ... **Select**.
- 4) In the **Select Field (Project)** dialog box, expand the **General** group and select **Status**.
- 5) Select OK.
- 6) In the **Options** area, in the **Update Value** list, select **Rejected**.
- 7) In the workflow element list, in the Reject Proposal step, select the **Notification Proposal Rejected** task.
- 8) In the **Options** area, in the **Performers** field, select ... **Select**.
- 9) In the Create Performer List dialog box, in the Search field, enter your username.
- 10) In the **Available** list, select your username.

- 11) Select > Move Right.
- 12) Select Create.
- 13) In the **Form** field, select ... **Select**.
- 14) In the **Select Form (Project)** dialog box, select **Proposal Rejected Notification**.
- 15) Select Select.
- 16) Select Save.

Validating and Publishing the Workflow Configuration

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have configured all of the steps and tasks of the Project Proposal Approval workflow, you can validate it and publish it.

To validate and publish the workflow configuration:

- On the Workflow Configure page, select Validate.
 In the Validation Errors and Warnings dialog box, you should see several warnings but no errors.
- 2) In the Validation Errors and Warnings dialog box, select Close.
- 3) Select Publish.
- 4) In the confirmation dialog box, select **Yes**.

Set the Workflow as the Default Project Proposal Workflow

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

After you have created the workflow and all required forms, you have to tell Primavera Cloud to use this workflow whenever a user proposes a new project. This is a workspace-level setting.

To set the workflow as the default project proposal workflow:

- 1) In the object selector, select the workspace where you made the workflow.
- 2) In the sidebar, select **Summary & Settings**.
- 3) On the Summary & Settings menu, select Defaults & Options, and then select Project.
- 4) Select the Workflow Actions tab.
- 5) In the Add Project Proposal Row, in the Workflow field, select Approve Project Proposal.
- 6) Select **Save**.
- 7) In the **Summary & Settings** panel, select **X Close**.

Run the Workflow against a Sample Project Proposal

Note: This topic is part of the *Creating a Project Proposal Approval Workflow: Example* (on page 93) series.

Now that you have created the Project Proposal Approval workflow and all required forms, you can run it against a sample project proposal to see how tasks appear to performers.

Note: To create a sample project proposal to run this workflow against, you must have security privileges to Add proposals.

To run the Project Proposal Approval workflow against a sample proposal:

- 1) In the object selector, select A Projects, and then select View All Projects.
- 2) In the **Projects** inventory panel, expand the **Add Project** ▼list, and then select **Proposal**.
- 3) In the Add Project Proposal dialog box, in the Name field, enter Sample Project.
- 4) In the ID field, enter SAMPLE001.
- 5) Select Add.

You should receive a notification that you have been assigned the Collect Proposal Details workflow task.

- 6) In your **D** Inbox, select the task titled Workflow Task: Collect Proposal Details.
- 7) Select View Workflow Task.
- 8) On the **Details** tab, enter a value for each of the required fields. Set the **Risk Level** field to **High**, **Very High**, or **Not Identified** to send the proposal through the manual approval path of the workflow. Set it to **Very Low**, or **Medium** to send it through the automatic approval path of the workflow.
- 9) Select Submit.
- 10) Return your **Inbox** to complete the subsequent tasks and reject or approve the sample project proposal.

Tips

If no tasks appear in your **Inbox**, you may need to refresh your browser window.

Configure View Settings

A view is a configured visual layout of a page.

The following section contains view options common throughout Oracle Primavera Cloud. Available options will vary by page.

Note: Certain page view settings are not maintained when the page is refreshed using the Safari browser.

Views Overview

A view is a configured visual layout of a page. Views allow you to customize content and layout choices such as column selection, filtering, grouping, and sorting. Some pages support additional view options, such as Gantt charts, Gantt bars, and spreadsheet rows. Selecting the best view for your needs can facilitate the process of managing data in Primavera Cloud.

Some pages support the ability to save named views. Named views can be saved as one of the three following types: Personal, Project, and Workspace. Personal views are private and only accessible to the user who created them. Project views are saved at the project level and can be accessed by other members of the project. Likewise, workspace views are saved at the workspace level and are available to all users in the workspace. Available view types may vary by page. A fourth named view type, standard, can be found on the Activities and Budget Planning pages. Standard views are views that come with Primavera Cloud and contain pre-configured view options. They are read-only, but you can modify the view options and save the modifications as a new view.

On pages that support named views, you can create any number of views necessary to display your layouts. Personal, project, and workspace named views can be added, modified, and deleted in the Manage Views panel on a page. On pages without named views, available view options are configured in the Settings panel and are applied and saved to the page.

For pages that support named views and autosave, you can configure if view changes to those pages are saved manually or automatically by configuring the **Save Views** options in Preferences.

Available view options will vary by page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to. For example, the title of the icon for the Activities grid is Activities Grid Settings.

Add a View

Some pages support the ability to add and save named views. Named views can be configured and applied at any time. Add multiple views to display different layouts.

There are four types of named views:

- **Standard**: Accessible by all users. Available on the Activities and Budget Planning pages. You cannot add, edit, or delete standard views, but you can modify the view and save the changes as a new view of another type.
- **Project**: Accessible by other members of the project.
- **Workspace**: Accessible by all members of the workspace.
- **Personal**: Only accessible to the user who created them.

Notes:

Your security privileges determine your ability to create project and

workspace views.

View options may vary per page.

To add a view:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the **Manage Views** panel, select a view type, select the **© Context** menu, and then select **Add**.
- 3) Enter a name for the new view.
- 4) Add the view:

In the Manage Views panel:

- Select Save.
- b. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save the view select **Save** in the **View** list.
- c. Select **Reset**. Reset deletes the view that was previously added.

Tips

On the Context menu next to an existing view, you can cut, copy, and paste the view into any of the view types. Select Delete to delete the view. Select Set Active to apply the view to the page.

Apply a View

Select a view to apply its display settings to a page.

Note: You can only apply a view on pages that support named views.

To apply a view:

- 1) Navigate to a page, and then select the **A Settings** icon.
- 2) In the Manage Views panel, select a view.
- 3) Select the **Ocontext** menu, and then select **Set Active**.

Tips

- For quicker selection, the **View** list displays a list of the five most recently applied views. Select a view to apply it.
- When edits are made to a view and the Save Views preference is set to manual, a warning icon is displayed in the View list and you will have the option to reset the view, save the view, or save the changes as a new view directly from the View list.

Configure a Column

Configure columns to select and position the columns of data that appear on a page.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure a column:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Columns tab.
- 3) In the Available Columns section, select columns and select Add Column to Selected Columns to add them to the Selected Columns section.
- 4) To position the columns in the **Selected Columns** section by:
 - a. Using the up and down arrows to change the positioning of the columns.
 - b. Dragging columns between the pinned and unpinned sections or by dragging the **Pinned Columns Above** slider up or down. Pinned columns are displayed in a section at the beginning of the table and will not move when the rest of the table is scrolled horizontally. Pinned columns are not available on every page.
- 5) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Tips

- You can choose to show or hide the discussion icon in a table. Select the **Settings** icon and, in the **Standard Column Options** section, select the **Show Discussion Indicator** option.
- Expand or collapse hierarchical data for an object in a single table row from the row's
 Context menu. To expand all or collapse all hierarchical data for all object rows, use the
 Context menu in the table header.
- Collapse a selection to a certain grouping band level by selecting the Collapse To option, and then selecting the grouping band you want to collapse in the current layout. The selection available in the list is based on the grouping bands displayed in the current view.

Note: Expand All/Collapse All row settings can be saved to a view; however, individual Expand/Collapse row settings can only be maintained in the active view. If you switch views after

expanding/collapsing hierarchical data in individual rows, you will need to readjust when you return to that view.

Related Video Tips

Using Drag-and-Drop Video

Configure a Saved Filter

Filters reduce the data displayed on a page without deleting or otherwise removing it. Data that has been filtered out is still used for all calculations and reports. Some pages offer saved filters, which enable you to create multiple filters and apply them later.

Filters can be saved as one of three types: Workspace, Project, or Personal. Workspace filters are accessible to all users in the workspace. Project filters are accessible to all users in a project. Personal filters are private and only accessible to the user who created them. Users can view and edit all visible filters for a page, but can only apply a filter if it is accessible by the current view. For example, workspace views can only apply workspace filters, but personal views can apply workspace, project, and personal filters. Project views can apply project and personal views, if applicable. To apply a filter that is not accessible by the current view, you can cut or copy it to a type that is accessible to the view. A fourth filter type, standard, contains read-only filters that come with Primavera Cloud. Standard filters cannot be added, edited, or deleted, but then can be copied to a different type of filter and then modified.

Applied filters are saved to the selected view. On a page without named views, saved filters are saved and applied to the page.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure a saved filter:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the **Manage Views** or **Settings** panel, select the **Saved Filters** tab, and then select **Manage Filters**.
- 3) In the **Manage Filters** panel, in the navigation tree, select a filter type, select the **© Context** menu, and then select **Add**.

Note: Filters applied in the Manage Filters panel are applied to the currently active view. To change the active view, in the **Manage Views** panel, select the **© Context** menu next to a view, and then select **Set Active**.

- 4) Enter a name for the new filter.
- 5) Do the following to define the filter criteria:
 - a. In the **Match** list, select an option to define the filter conditions:
 - All of the following: Data is filtered only if it matches all the specified rules.

- Any of the following: Data is filtered if it matches any of the specified rules.
- b. Select + Add a filter condition.
- c. In the first empty row, use the following fields to define a filter rule:
 - **Field**: The data field to which the rule is applied.
 - Operator: The comparison operation for the rule.
 - Value: The value against which the rule compares the data field.
- d. Add rows for each filter rule you want to define.
- e. Add filter groups to define additional sets of conditions.
- 6) Apply the view:

In the Manage Views panel:

- a. Select Save. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select × Close.

In the **Settings** panel:

7) Select Save.

Tips

- ▶ On the page, select **∀Filters** to open the **Manage Filters** panel, apply a recently used filter, or clear filters currently in use.
- For information on applying a saved filter, see *Apply a Saved Filter* (on page 123).

Apply a Saved Filter

Apply a filter to reduce the data displayed on a page without deleting or otherwise removing it. Data that has been filtered out is still used for all calculations and reports. Saved filters enable you to create multiple filters and apply them later.

Applied filters are saved to the selected view. On a page without named views, applied filters are saved to the page. For information on configuring a saved filter, see *Configure a Saved Filter* (on page 122).

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To apply a saved filter:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Saved Filters tab.

3) In the Manage Views panel, select the view to which you want to apply the filter.

Note: In the **Settings** panel, applied filters are saved directly to the page.

- 4) In the **Match** field, select an option to define the filter application conditions:
 - All applied: Data is filtered only if it matches all of the selected filters.
 - Any applied: Data is filtered if it matches any of the selected filters.
- 5) In the filters tree, select the filters to apply to the view.

Note: If you want to edit a filter before you apply it, select **Manage Filters**. Any filter in the **Manage Filters** panel can be edited, but you can only apply a filter if it is accessible by the currently active view. To change the active view, in the **Manage Views** panel, select the **© Context** menu next to a view, and then select **Set Active**.

6) Apply the view:

In the Manage Views panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Tips

- ▶ Some pages include several standard filters, preconfigured for your use. You can apply them to your view at any time.
- ▶ On the page, select **∀Filters** to open the **Manage Filters** panel, apply a recently used filter, or clear filters currently in use.
- When you apply a filter to a view, the filter icon changes to indicate that the data on the page has a filter applied.

Configure and Apply Filtering

On pages without saved filters, you can configure and apply filtering options as part of the current view. Filters reduce the data displayed on a page without deleting or otherwise removing it. Data that has been filtered out is still used for all calculations and reports.

On pages with named views, you can configure a different set of filtering options for each view. On pages without named views, filtering options are applied to the page.

Notes:

- For information on configuring a saved filter, see Configure a Saved Filter (on page 122).
- View options may vary per page.

To configure and apply filtering options:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the **Manage Views** or **Settings** panel, select the **Filtering** tab.
- 3) In the **Manage Views** panel, select the view to which you want to apply the filter.

Note: In the **Settings** panel, filtering options are configured and applied directly to the page.

- 4) Add a filter:
 - a. In the **Match** list, select an option to define the filter conditions:
 - All of the following: Data is filtered only if it matches all the specified rules.
 - Any of the following: Data is filtered if it matches any of the specified rules.
 - b. Select + Add a filter condition.
 - c. In the first row, use the following fields to define a filter rule:
 - **Field**: The data field to which the rule is applied.
 - Operator: The comparison operation for the rule.
 - Value: The value against which the rule compares the data field.
 - d. Add rows for each filter rule you want to define.
 - e. Add filter groups to define additional sets of conditions.
- 5) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

In addition to the standard filtering options, the Work Plan, Hand-offs, Task List, and Constraints pages in the Tasks app also support the ability to configure and apply planning period options from the Filtering tab. On the Work Plan, Hand-offs, and Task List pages, you are filtering activities and tasks based on their start and finish dates. On the Constraints page, you are filtering task constraints based on their dates needed, promised dates, and assigned task start and finish dates.

To configure planning period filtering options:

- 1) On the **Filtering** tab, in the **Planning Period** section, select one of the following:
 - ▶ All Weeks: Select to display all objects regardless of their dates.
 - **Rolling Time Frame**: Select to filter objects according to a planning period:
 - Weeks Before: Display any object whose dates occur within the specified number of weeks before the current date.
 - Weeks After: Display any object whose dates occur within the specified number of weeks after the current date.

Tips

- Tasks that fall outside the planning period may still be visible if any of the following are true:
 - Any of its dates occur within the period.
 - Assigned activity dates occur within the period.
 - It is part of a hand-off chain that occurs within the period.
- Depending on the fields selected in the standard filtering options, the Work Plan, Hand-offs, and Task List pages support the filtering of tasks by a variety of task values, including the activities and WBS nodes with which the tasks may be associated.
- You can also update Planning Period settings directly from the Work Plan, Hand-offs, Task List, or Constraints page.

Configure Grouping Options

Configure grouping options for views to specify how data is grouped on a page. You can customize the color and appearance of your grouping bands by level.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure grouping:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Grouping tab.
- 3) To configure the grouping options, select the **Configure** tab and do the following:
 - a. In the **Group By** section, select your grouping options:
 - **Group By**: Defines how data is grouped together on the page.
 - Sort Order: Defines how data is sorted within groupings.
 - Grouping Interval: Specifies an interval by which to separate your groupings.
 This field is only available when grouping by hierarchical fields.

Note: To add grouping rows, select the **© Context** menu, and select **Add Above** or **Add Below**.

- b. In the **Band Options** section, select view options:
 - Show field title: Displays the title of the field by which data is grouped in a band.
 - Show field rollups: Displays the calculated total of all data in a grouping band.
 - Hide if empty: Hides grouping bands that do not contain any data.
 - In the Display text in band using field, select an option to specify the text to appear in the band.

Note: This field only applies to group by fields that have both an ID and name.

- 4) To configure grouping band color options, select the **Theme** tab and do the following:
 - a. In the **Style** list, select a grouping style.
 - b. In the **Colors** list, select a default or custom color theme.
 - c. To add a custom theme, select **Add Custom Colors**, and then choose up to six colors for the custom theme. Each color corresponds to a grouping band level. You can create multiple custom color themes and select them in the **Colors** list. After choosing a custom theme from the list, you can edit its individual colors or select **PREMOVE CUSTOM Colors** to delete the theme.
- 5) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Tips

- Use the Show/Hide empty groups toggle on the Activities page or the Schedule Comparison page to automatically show or hide grouping bands that do not have any data.
- All resource assignments in a group must be the same type (labor or nonlabor) to be included in grouping bands. Materials are not calculated together because there may be different units of measure.
- WBS items have an additional sorting option for grouping on the Task List page. Select **Hierarchy** on the Grouping tab to apply a hierarchical sort order when managing views.

Related Video Tips

Style a Grid Video

Configure the Schedule Variance Analysis Panel

Configure comparison options to determine what is displayed on the Schedule Variance Analysis panel.

To configure the Schedule Variance Analysis panel tab options:

- 1) Navigate to the Schedule Comparison page (see page 145)
- 2) In the **Settings** panel, select the **Comparison Panel** tab.
- 3) To configure the comparison panel, select from the following:
 - a. In the **New** section, select the new items to display:
 - New Activities
 - New Relationships
 - New Resources Assignments
 - New Risk Mappings
 - b. In the **Deleted** section, select the deleted items to display:
 - Deleted Activities
 - Deleted Relationships
 - Deleted Resource Assignments
 - Deleted Risk Mappings
 - c. In the **Changed** section, select the changed items to display:
 - Changed Scheduler Settings
 - Changed Project Values
 - Changed Entered Values
 - Changed Calculated Values
 - Changed Relationships
 - Changed Resources Assignments
- 4) Select Apply.

Configure Sorting Options

Configure sorting options to specify how data is arranged on a page.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure sorting options on a page:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Sorting tab.

- 3) Complete the following fields to define a sort order:
 - **Sort By**: Select a column by which to order the data.
 - Order: Select a direction in which to arrange the sorted data.
- 4) To define additional levels of sorting, select the **Context** menu, and then select **Add Above** or **Add Below**.
- 5) Apply the view:

In the **Manage Views** panel:

- a. Select Save. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Related Video Tips

Using Multi-Column Sorting Video

Configure Gantt Bars on the Activities Page

To visually distinguish the different activity-specific bars displayed in the Gantt chart, you can configure bar settings for the Gantt chart view on a page. Some bars, such as the Current bar on the Activities page, have additional configuration options.

To configure Gantt chart bars:

- a) In the object selector, select a project or program.
- 1) In the sidebar, hover over **E** Schedule, and select Activities.
- 2) In the **Manage Views** or **Settings** panel, select the **Bars** tab.
- 3) To add a new bar, do the following:
 - a. Select + Add \vee , and then select Bar.
 - b. In the **Bar Type** list, select one of the available bar types.
 - c. In the Height list, specify a bar height.
 - d. In the **Bar Color** list, use the color picker to select a color for the bar. Optionally you can select a theme from the **Theme** list to apply a pre-configured color theme for all bars in the Gantt chart.
 - e. Click and drag one or more bars to change the order in which they appear.
- 4) To configure the Current bar for the **Activities** list, navigate to the **Bar Type** list, and select **Current**. Apply any of the following options:

- Select Show Progress to show activity progress as a separate bar color. Select a Progress Color from the list.
- If you want to color your activities according to their assigned code values, select the check box next to **Color by Activity Code**, and then select a workspace-level or project-level activity code. The code's values and their associated colors are shown below the list. Select **Configure** to configure the code value colors in the corresponding Codes dictionary. If Show Progress is enabled, you can configure the same options for **Progress Color by Activity Code**. Other bars also support the ability to color by activity code.
- ▶ Select **Swap Colors** to switch the positions of the bar and progress colors or the bar and progress activity codes.
- In the **Progress Style** list, select a progress style.
- Select Show Critical to represent critical activities with a red bar instead of the colors selected for the Current bar.
- 5) To configure labels for a bar, do the following:
 - a. Select the bar, select + Add \vee , and then select Label.
 - b. In the Label Field list, select a label for the bar.
 - c. In the **Color** list, use the color selector to select a font color.
 - d. In the **Height** list, select a font height.
 - e. Click and drag the label to position it next to or inside the bar.
- 6) Apply the view:

In the Manage Views panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

> Select Save.

Tips

- ▶ Select the **Summary Bar**. Enable **Show Expanded Summary Bars** to show summary bars for each expanded and collapsed grouping band in the Gantt view. When this option is disabled, a summary bar will only be displayed if its corresponding grouping band is collapsed.
- ▶ To preview how your Gantt chart bars will look, select **Preview**.
- ▶ To reset your Gantt chart settings to the default configuration, select **Reset**.

Configure Gantt Bars on the Task List Page

To visually distinguish project level task bars displayed in the Gantt chart, you can configure bar and bar label settings for the Gantt chart view on the Task List page.

To configure Gantt bars on the Task List page:

- 1) In the object selector, select a project or program.
- 2) In the sidebar, hover over **= Tasks**, and select **Task List**.
- 3) In the **Manage Views** or **Settings** panel, select the **Bars** tab.
- 4) In the editor grid, select the **Task Name** to make changes to the following label settings:
 - Adjust the bar label position: Click and drag the Task Name box to change the bar label position in respect to the Task Bar. For example, you can drag the label above, below, before, or after the task bar to customize the position of the task name label. By default, the task name displays after the bar.
 - Change the bar label color: After selecting Task Name, use the Color selector to change the task name label color.
 - Remove the bar label: Click the X beside Task Name to completely remove the bar label.
- 5) In the **Height** list, specify a bar height. Options include Small, Medium, and Large.
- 6) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

7) Select Save.

Tips

- ▶ To preview how your Gantt chart bars will look, select **Preview**.
- To reset your Gantt chart bar settings to the default configuration, select Reset.
- Tasks bars are colored by specific attributes. Go to Project Settings to modify this option.

Configure Gantt Chart Settings

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

You can configure Gantt chart settings on the following pages:

- Activities
- Task List

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure Gantt chart settings:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Gantt tab.
- 3) In the **Show** section, define your chart display options:
 - **Data date line**: Determines whether to show the project data date in the Gantt chart.
 - Relationship lines (Activities Page only): Determines whether to show activity relationship lines in the Gantt chart.
 - **Critical relationships**: Determines whether to show relationships for activities that must start or finish on time to ensure the project completes on schedule.
 - Non-driving relationships: Determines whether to show relationships for activities not on the longest path to project completion.
 - Hand-offs (Task List Page only): Determines whether to show hand-offs in the Gantt chart.
 - **Sight Lines**: Determines whether to show lines of demarcation for the selected timescale.
 - Non-working time shading: Determines whether to gray out time periods in which no work will be performed, as defined by the project calendar.
 - Progress Spotlight (Activities Page only): Enables the Progress Spotlight highlighting feature in the Gantt chart.
- 4) In the **Timescale** section, define your timescale options:
 - In the Timescale list, select a timescale for the Gantt chart:
 - Week/Day: The Gantt chart is divided into weeks which are then divided into days.
 - Month/Week: The Gantt chart is divided into months which are then divided into weeks.
 - Quarter/Month: The Gantt chart is divided into quarters which are then divided into months.
 - Year/Month: The Gantt chart is divided into years which are then divided into months.
 - Year/Quarter: The Gantt chart is divided into years which are then divided into quarters.
 - Reporting Period (Activities Page only): The Gantt chart is divided into the units set by the reporting cycle. This option is only available in a project view on the Activities page, and a reporting cycle must be defined for the project.
 - (Reporting Period timescale only) For the Reporting Period Label option, select Custom label only to display the reporting period as the label on the Gantt chart (such as WK3). When deselected, the label uses the dates (such as Sat 24 - Fri 30).
- 5) Apply the view:
 - In the **Manage Views** panel:
 - a. Select **Save**. When selected, you are saving all changes to the current view.

- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Tips

- You can also enable some or all of these options by selecting **Gantt Settings** under the Gantt chart.
- ▶ Tasks bars are colored by specific attributes. Go to Project Settings to modify this option.

Configure Network Settings

The Activity Network is a view that displays a full diagram of the activities and relationships in your project. Configure the number of activity-related fields to display in each activity box.

You can configure network settings on the following pages:

Activities

To configure Activity Network settings:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the **Manage Views** or **Settings** panel, select the view to configure.
- 3) Select the **Network Setting** tab.
- 4) In the **Customize Activity Box Fields** section, display up to eight additional fields across two columns. Select **One field per line** to limit the display to a single column of four fields.
- 5) In the **Preview** section, you can preview the display of an activity box based on your selected fields.
- 6) Apply the view:

In the **Manage Views** panel:

- a. Select Save. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Configure Quick Filters

You can use quick filters to reduce the number of visible items on a page.

Notes:

- View options may vary per page.
- Due to slight differences in functionality, some pages in the application have their own set of help topics for quick filters.

To configure quick filters:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Quick Filters tab.
- 3) In the **Show** section, select up to three quick filters to apply to the view.
- 4) Apply the view:

In the Manage Views panel:

- a. Select Save. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Apply a Quick Filter

You can use quick filters to refine the data displayed on a page. In a filter list, select one or more values on which to filter. Use multiple quick filters to further reduce how much data is displayed. Clear a filter to show more results. Quick filter selections are not saved with the view.

Notes:

- View options may vary per page.
- Due to slight differences in functionality, some pages in the application have their own set of help topics for quick filters.

To apply a quick filter to a page:

- 1) In the Quick Filters list, select applicable filter values.
- 2) To remove a filter, expand a filter list, and select Clear Filter.

Configure Task Counts

Task counts display the number of tasks of a specific status that are assigned to an activity. Use the Task Counts tab to configure which task counts are displayed in the activity details popover. Activity details provide additional information about the activities in your project, including associated WBS, start and finish dates, and activity percent complete. All task counts are enabled by default. Task counts are for public tasks only and do not include private tasks.

You can configure task counts on the following pages:

- Work Plan
- Hand-offs
- Task List

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure task counts:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Task Counts tab.
- 3) Select the task counts that you want to display:
 - ▶ **Total Tasks**: The total number of tasks assigned to the activity.
 - Unplanned tasks: Tasks without a due date.
 - Planned tasks, not completed: Tasks with a due date or committed date that are not complete.
 - Planned tasks, completed: Tasks with a due date or committed date that are marked as complete.
 - Planned tasks outside of activity dates: Tasks with a due date before the activity start date or after the activity finish date.
 - ▶ Tasks hidden by filters and security: Tasks that are not visible due to the planning period, enabled task filters or quick filters, or due to the current user's security settings. Tasks with assigned activities that occur within the planning period dates are visible.

Note: The Unplanned tasks; Planned tasks, not completed; and Planned tasks, completed task counts contain the total number of tasks associated with the selected activity. The Planned tasks outside of activity dates and Tasks hidden by filters and security task counts contain tasks already counted in the other categories.

4) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.

- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Configure a Timescale

Configure the timescale interval for a page.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure a timescale:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) On the Manage Views or Settings panel, select Timescale.
- 3) In the Timescale Standards Settings section, select a timescale interval.
- 4) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Note: If you are changing the timescale on the **Time Phase** view of the **Fund Sources** page, remember this: You can only distribute quantities for a time-phased fund if the **Timescale** setting you choose here matches that fund's **Distribution Type** value. For example, if you want to distribute quantities for a fund that has a **Distribution Type** value of **Yearly**, you must first set the **Timescale** value to **Yearly**.

Tips

You can also change the timescale interval by right-clicking on the timescale on a page and selecting an option.

Configure Spreadsheet Rows

Configure spreadsheet rows to show summary and spread values for each item in a table. For example, a resource spreadsheet lists all of the available resources in a project. Each resource may display separate rows for demand hours, commitment hours, demand costs, and commitment costs. Each field row can show values across a timescale and rolled up to a summary level.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure a spreadsheet row:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Spreadsheet Rows tab.
- 3) In the Available Spreadsheet Rows section, select rows and select Add Row to Selected Rows to add them to the Selected Spreadsheet Rows section.
- 4) Use the up and down arrows to change the positioning of the columns in the **Selected Spreadsheet Rows** section.
- 5) Apply the view:

In the **Manage Views** panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Related Video Tips

Quickly Add a Row Video

Customize Task Cards

Customize Task Cards Video

The Work Plan page and the Hand-offs page support the display of multiple task card types. The basic task card shows a task's name, type, and status icons. The color of the card indicates the company assigned to work on the task. When the size of the planning board columns are decreased, a smaller, more generic task card may be shown. You can also enable configurable task cards to display task information most important to you. Customize configurable task cards with task fields and status icons. Just like basic task cards, configurable task cards are colored according to their assigned company. See *Task Icon Reference* (https://docs.oracle.com/cd/E80480_01/English/user_guides/task_management_user_guide/224775.htm#t224775).

When configurable task card are enabled, you can double-click a basic task card to display configurable task information. Quickly rename a task by editing the task name in the card header. Select a status icon on the card or select a field with an edit icon to modify its value. On non-touchscreen devices, this icon is shown when you hover over an editable field. On touchscreen devices, this icon will always be shown on editable fields. Read-only fields will not have this icon. The right-click menu functions the same for both basic and configurable task cards. Configurable task cards do not support group selection functionality.

If you want to access all of a task's information, you can select the Task Details icon in the card header to open the Task Details dialog box. When configurable task cards are disabled, double-clicking a basic task card will open the Task Details dialog box directly.

To customize basic and configurable task cards:

- 1) In the object selector, select a project.
- 2) In the sidebar, hover over **= Tasks**, and select **Work Plan** or **Hand-offs**.
- 3) Select **Settings**.
- 4) In the **Manage Views** panel, select the **Task Cards** tab. Modify task card settings and view the changes in each **Preview** section.
- 5) In the **Basic Task Card** section, select any of the following:
 - **Show Task Icons**: Display icons on basic task cards on the planning board. This setting is enabled by default for all views.
 - Wrap Text on Tasks: Wrap long task names to the next line of a basic task card.
- 6) In the **Configurable Task Card** section, select **Enable Configurable Task Card**, and then do any of the following:
 - - In each section, select up to three fields. Each field can only be used once.
 - Select Hide Label to hide the selected field's name. Some labels cannot be hidden
 - Click and drag section dividers to resize the height and width of each section.
 - Select Delete to delete a section.
- 7) In the **Icons** list, choose to show task icon at the top of the card, bottom or the card, or not at all.
- 8) In the **Font Size** list, choose to show a standard font size across all fields or enable each field value to fit the available cell space.

- 9) Select Apply.
- 10) All changes made to this page are saved automatically.

Tips

- ▶ To open the Task Details dialog box from a configurable task card, double-click a basic task card, and then select ☐ **Task Details** in the configurable task card header, or select the constraints, predecessor, or successors count to open the Task Details dialog box to the respective tab.
- ▶ To modify the other view options in the Manage Views panel, see *Configure View Settings* (on page 118).

Configure Currency Settings

Configure the currency display settings on a page. Currency settings are user-specific and are saved across views.

On project-level pages that support currencies, you can choose to view your costs in terms of the application's base currency, the workspace currency, or the project currency.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure a currency view:

- 1) Navigate to a page, and then select the **A Settings** icon.
- 2) On the Manage Views or Settings panel, select Currency.
- 3) Configure the following settings:
 - Select Show currency symbols to display the symbol of the currency.

Note: This option is only enabled if the **Show currency symbol** option is also enabled in the user preferences. See Configure the Currency Format for more information.

- Select Show currency banner to display the chosen currency in the page toolbar.
- In the In what currency do you want to view costs? section, choose which currency to view costs. If all available currencies are the same, this field is disabled. Currencies that can be edited are labeled Editable.

Note: If workspace currency is selected but is not supported, cost data will display in the base currency. For more information on workspace currency, see Workspace Currency Overview.

4) Apply the view:

In the Manage Views panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.

- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Configure Formatting

Highlight Read-Only Fields Video

Configure the formatting on a page.

The Work Plan page in the Tasks app contains additional page formatting options.

Note: View options may vary per page. The title of the **Settings** icon may be specific to the grid or detail window that the icon pertains to.

To configure the formatting:

- 1) Navigate to a page, and then select the **Settings** icon.
- 2) In the Manage Views or Settings panel, select the Formatting tab.
- 3) In the **Read-only Styling** section, select **Highlight Read-only cells** to highlight read-only cells on the page.
- 4) (Work Plan page only) Do any of the following:
 - In the **Band Options** section, select **Hide if empty on Hopper** or **Hide if empty on Planning Board** to hide empty grouping bands in the hopper or planning board for activities that have not been assigned any tasks.
 - In the **Planning Board Options** section, select **Show Info Bar** to display details for the selected task or activity below the planning board.
- 5) Apply the view:

In the Manage Views panel:

- a. Select **Save**. When selected, you are saving all changes to the current view.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.
- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select X Close.

In the **Settings** panel:

Select Save.

Tips

▶ Configure formatting specific to list table elements by navigating to the Activities List page or the Task List page. See *Configure Cell, Column, and Row Formatting* (on page 141).

Configure Cell, Column, and Row Formatting

Fast Formatting in Views Video

Configure cell, column, and row formatting to determine how a table will display. Apply a different font color, add a background color, or use filter options to create conditional formatting.

You can customize table formatting on the following pages:

- Activities
- Task List

To customize table formatting:

- 1) In the object selector, select a project or a program.
- 2) Navigate to the Activities or Task List page. Find the cell, column, or row in the table that you would like to format.
 - **Columns**: Right-click a column header, then select **Format** to change formatting options for a column, a column using a filter, or a row using a filter.
 - ▶ Rows: From the item **©** Context menu, select Format Row.

Note: You can apply filters to rows from the format options in the column headers.

- Cells: Right-click the cell that you would like to format and select Format Cell or Format Cell by Filter.
- 3) Select an option to make needed formatting adjustments:
 - Format Cell/Column/Row: Opens a formatting menu with basic font styles and color preset options. Select Apply to keep your changes, or select Clear to discard them.
 - Format Cell/Column/Row by Filter: Select Add to open a formatting menu and create a custom filter for conditional formatting based on specified criteria, such as a text color preset option. For example, if you want only rows that meet certain criteria to display red, you could create a filter specifying those details here. Select Add to add your filter to the selected table element.

Notes:

- Formatting changes are saved with the current Named view and display on all printing outputs with the option to turn them on or off. You can view your selected formatting options from the Settings page.
- Formatting selections are processed sequentially, and some changes overlap, depending on the type of change you apply. Row formatting applies first, followed by column formatting, and then cell formatting. Each type displays basic formatting in order of creation, followed by

conditional formatting—by filter—in order of creation. For example, if you apply green as an alternating background color for rows, but then apply a yellow background color to a cell, the cell will have a yellow background color.

Tips

- Include a hyperlink that directs team members to an internal or external site with more information than the grid can provide. See Create a Hyperlink in a Grid.
- ▶ Expand or collapse hierarchical data within a table row from the row's **© Context** menu. To expand or collapse hierarchical data for every row, use the **© Context** menu in the table header.
- Collapse a selection to a certain grouping band level by selecting the Collapse To option, and then selecting the grouping band you want to collapse in the current layout. The selection available in the list is based on the grouping bands displayed in the current view.

Note: Expand All/Collapse All row settings can be saved to a view; however, individual Expand/Collapse row settings can only be maintained in the active view. If you switch views after expanding/collapsing hierarchical data in individual rows, you will need to readjust when you return to that view.

Configure Plan By Options

Configure your plan by options for the Hand-offs page to specify what grouping options are available in the **Plan By** drop down. The options available for selection are Activity, Company, Codes, and WBS.

To configure Plan By grouping:

- 1) Navigate to the Hand-offs page, and then select the **Settings** icon.
- 2) In the Manage Views panel, select the Plan By tab.
- 3) In the Available section, select the options you want to appear in the Plan By filters list.
- 4) When an option is selected, drag and drop the option to the **Selected** section or use the arrow buttons to move the selected options between **Available** and **Selected**.

Note: The codes category lists all codes that apply to both tasks and activities.

- 5) (Optional) To display WBS and Code value grouping bands hierarchically select **Display** lanes for WBS and Code values hierarchically.
- 6) Apply the view:

In the **Manage Views** panel:

- a. Select Save.
- b. Select **Save As**. When selected, you can create a new Personal, Project, or Workspace view with a new name in the **Save View as** window.

- c. Select **Apply**. When selected, you are returned to the grid. The grid displays any changes you have made; however, those changes are not saved. To save changes select **Save** or **Save As** in the View list.
- d. Select Reset.
- e. Select Close.

Tips

- ▶ For more information on how to configure codes, review the Codes Overview topic.
- ▶ The WBS Plan by grouping option can be set to any WBS level such as the children or parent level.
- All child levels under the WBS are displayed by default. You can use the WBS quick filter options to control the child WBS levels displayed on the Hand-offs and Work Plan pages.
- ▶ The WBS Plan by grouping option will display all WBS options including those that do not have an activity associated with them.
- If you're planning by an activity or task and no activities have been created or assigned to those tasks, they will not display in the schedule.
- Right-click a selection of one or more tasks, and then select Assign Activity to assign the same activity to all of the selected tasks. In the Assign Activity dialog box, leave the Activity field blank to remove any existing activity assignment from the selected tasks.

Appendix of Referenced Navigation Steps

Navigate to the WBS page

- a) In the object selector, select a project.
- b) In the sidebar, hover over **E** Schedule or **B** Scope, and select WBS.

Navigate to the Activities page

- a) In the object selector, select a project or program.
- b) In the sidebar, hover over **E** Schedule, and select Activities.

Navigate to the project Activities page

- 1) In the object selector, select a project.
- 2) In the sidebar, hover over **E** Schedule, and select Activities.

Navigate to the Baselines page

- a) In the object selector, select a project.
- b) In the sidebar, hover over **Scope** or **Schedule**, and select **Baselines**.

Navigate to the Baselines or Activities page

- 1) In the object selector, select a project.
- 2) In the sidebar, hover over **Scope** and select **Baselines**, or hover over **Schedule** and select **Baselines** or **Activities**.

Navigate to the Schedule Comparison page

- 1) In the object selector, select a project.
- a) In the sidebar, hover over **E** Schedule, and select Schedule Comparison.

Navigate to the workspace resource page

- a) In the object selector, select a workspace.
- b) In the sidebar, hover over Resources, and select Resource List.

Navigate to the project resources page

- a) In the object selector, select a project.
- b) In the sidebar, hover over **Resources**, and select **Resource List**.

Navigate to the workspace or project resources page

- a) In the object selector, select a workspace or project.
- b) In the sidebar, hover over & Resources, and select Resource List.

Navigate to the workspace role page

- a) In the object selector, select a workspace.
- b) In the sidebar, hover over **Resources**, and select **Role List**.

Navigate to the project roles page

- a) In the object selector, select a project.
- b) In the sidebar, hover over & Resources, and select Role List.

Navigate to the workspace or project roles page

- a) In the object selector, select a workspace or project.
- b) In the sidebar, hover over Resources, and select Role List.

Navigate to the workspace resource assignments page

- a) In the object selector, select a workspace.
- b) In the sidebar, hover over Resources, and select Assignment List.

Navigate to the project or program resource assignments page

- a) In the object selector, select a project or program.
- b) In the sidebar, hover over Resources or Eschedule, and select Assignment List.

Navigate to the workspace resource analysis page

- a) In the object selector, select a workspace.
- b) In the sidebar, hover over **Resources**, and select **Analysis**.

Navigate to the project or program resource analysis page

- a) In the object selector, select a project or program.
- b) In the sidebar, hover over **Resources**, and select **Analysis**.

Navigate to the files page

- a) In the object selector, select a project, portfolio, program, or idea.
- b) In the sidebar, hover over **B** Files, and select File List.

Navigate to the project files page

- a) In the object selector, select a project.
- b) In the sidebar, hover over **Files**, and select **File List**.

Navigate to the project or portfolio files page

- a) In the object selector, select a project or portfolio.
- b) In the sidebar, hover over **Files**, and select **File List**.

Navigate to the project Details page

- a) In the object selector, select a project.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Details.

Navigate to the project settings page

- a) In the object selector, select a project.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Settings**.

Navigate to the program settings page

- 1) In the object selector, select a program.
- 2) In the sidebar, select **Summary & Settings**.
- a) On the Summary & Settings menu, select Settings.

Navigate to the program codes page

1) In the object selector, select a program.

- a) In the sidebar, select **Summary & Settings**.
- b) On the **Summary & Settings** menu, select **Codes**.

Navigate to a dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select a dictionary item.

Navigate to the Calendars dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Calendars**.

Navigate to the Codes dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Codes**.

Navigate to the Curve Profiles dictionary page

- 1) In the object selector, select a workspace.
- 2) In the sidebar, select **Summary & Settings**.
- 3) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Curve Profiles**.

Navigate to the Units of Measure dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings.**
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Units of Measure**.

Navigate to the Locations dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Locations**.

Navigate to the Currencies dictionary page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Currencies**.

Navigate to the project Calendars dictionary page

- a) In the object selector, select a project.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Calendars**.

Navigate to the project Codes dictionary page

- a) In the object selector, select a project.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Dictionaries**, and then select **Codes**.

Navigate to an object configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select an object.

Navigate to the Activity configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select Activity.

Navigate to the File configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select File.

Navigate to the Project configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select Project.

Navigate to the Program configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select Program.

Navigate to the Resource/Role configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Defaults & Options**, and then select **Resource/Role**.

Navigate to the Resource Assignment configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the **Summary & Settings** menu, select **Defaults & Options**, and then select **Resource Assignment**.

Navigate to the WBS configuration page

- a) In the object selector, select a workspace.
- b) In the sidebar, select **Summary & Settings**.
- c) On the Summary & Settings menu, select Defaults & Options, and then select WBS.

Navigate to the Manage Services page

- a) In the header, select your username.
- b) On the **User** menu, select **Manage Services**.

Navigate to the Preferences page

- a) In the header, select your username.
- b) On the User menu, select Preferences.