Oracle Fusion Cloud Project Management

Implementing Project Execution Management

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There are a number of ways to learn more about your product and interact with Oracle and other users.

Get Help in the Applications

Some application pages have help icons ⑦ to give you access to contextual help. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. If the page has contextual help, help icons will appear.

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1 Introduction to Project Execution Management Implementation

About This Guide

Welcome to the Implementing Project Execution Management guide.

Audience and Scope

If you're reading this guide, you're likely a project application administrator or setup user looking for concepts and procedures around:

- Implementation functionality not covered in the Getting Started with Your PPM Implementation guide such as setting up advanced features.
- Configuration of the Project Management and Resource Management applications.
- Administrative components such as running scheduled processes and enabling public events.

Keep in mind that this guide doesn't contain information about:

- The initial tasks to set up the applications. See the Getting Started with Your PPM Implementation guide for this information.
- The tasks performed by project managers. See the Using Project Execution Management guide for this information.
- Configuration tasks such as adding fields and changing field labels. See the Configuring and Extending Applications guide for this information.

Related Guides

You might need additional information to implement and configure Project Execution Management applications. Here's a list of guides that you might want to consult:

Guide	Description
Securing ERP	Describes how to enable user access to Oracle ERP Cloud functions and data.
Using Functional Setup Manager	Describes how to use Functional Setup Manager to manage implementation projects, execute task lists, and migrate data between application instances.
Using Common Features	Provides help for end user features that are common across Oracle Applications Cloud.
Implementing Common Features for Financials and Project Portfolio Management	Describes tasks to configure and set up features that are common across Oracle Applications Cloud.

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Guide	Description
Configuring and Extending Applications	Describes how to use runtime tools such as Page Composer or flexfields to configure and extend Oracle Applications Cloud.

Overview of Project Execution Management Offering Implementation

Implement this offering to configure how project managers, resource managers, and team members execute projects, track requirements, schedule and collaborate on tasks, and so on.

To implement Project Execution Management offering, you must have the Application Implementation Consultant role (ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB) and must have opted in to the offerings applicable to your business requirements. To manage the opt-in and setup of your offerings, refer to the Oracle Applications Cloud Using Functional Setup Manager guide.

Here's the list of primary functional areas available in this offering.

Functional Area	It Enables You To
Initial Users	Set up users and data roles, import users and roles into application security, import user login history, and manage applications security preferences.
Users and Security	Set up your initial implementation setup users, hierarchy, and enable users to perform functions related to their roles.
Project Execution	Configure how you execute projects, manage requirements, schedule and collaborate on tasks, staff resources, maximize utilization, resolve issues, and complete deliverables. Define and manage project users, project roles, and calendars.
Project Resource Management	Define attributes required to manage employees and contingent workers. Create and manage legislative data groups, business units, legal entities, organizations, jobs, resource pools, pool owners, and pool hierarchies.
Applications Extensions	Manage the common functions that help in maintaining the core application data, establishing security, maintaining transactional and shared data, and setting the user general preferences.

Overview of Common Applications Configuration for Project Execution Management

Tasks that are common across multiple products are grouped into the Define Common Applications Configuration for Project Execution Management task list. You can perform these tasks once and they're applicable in all the relevant products.

So, if you have already performed these tasks, you don't have to do it again.

Here's the list of tasks in the Define Common Applications Configuration for Project Execution Management task list.

Task	Is This Required?	It Enables You To
Run User and Roles Synchronization Process	Yes	Run a batch process to synchronize users and roles.
Manage Applications Security Preferences	No	Manage applications security preferences including user name generation rules, password policy and user notification templates.
Import Users and Roles into Application Security	No	Import users and role data from LDAP and store it in Application Security tables.
Import User Login History	No	Import information that the Inactive Users Report uses to identify inactive users.
Manage Job Roles	No	Review, create, or update enterprise-wide abstract and job roles. Create role hierarchies.
Manage Duties	No	Review the logical groupings of tasks that define duty roles. Provision duty roles to abstract, job, or other duty roles.
Manage HCM Role Provisioning Rules	Yes	Create and manage rules for provisioning roles to people based on assignment information, such as job, position, and person type.
Import Worker Users	No	Import Worker users as HCM Workers from legacy applications. The import process automatically creates user accounts and assigns roles to workers using HCM role provisioning rules.
Manage Users	Yes	Manage application user definitions.

2 Define Common Project Execution Management Options

Overview of Common Project Execution Options

Tasks that are common across Project Execution Management functional areas are grouped into the Define Common Project Execution Options task list. You can perform these tasks once and they're applicable in all relevant functional areas.

Here's the list of tasks in the Define Common Project Execution Options task list along with a brief description.

Task	Is This Required?	It Enabled You To
Manage Project Implementation Administrator	Yes	Create or identify a project application administrator to manage and control access to Project Portfolio Management applications.
Manage Project User Provisioning	Yes	Create and update users and assign enterprise roles.
Manage Project Roles	No	Create and update roles that are used to control access to project-level information and for defining project resource requests.
Manage Project Enterprise Resources	No	Create and update enterprise resources to assign to projects, tasks, issues, and deliverables.
Manage Project Shifts	No	Configure shifts to represent a time period that determines how many hours you work on a day.
Manage Project Workday Patterns	No	Configure workday patterns to represent a collection of one or more shifts over a number of days. A pattern repeats for a specific date range to define the complete schedule.
Manage Project Schedules	No	Configure schedules to define the actual calendar dates worked, and the pattern shifts to apply to those dates worked. The date range in a schedule is defined by a schedule start date and a schedule end date.
Manage Project Schedule Exceptions	No	Configure schedule exceptions to define deviations in availability from a schedule.

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Project User Provisioning

Overview of User Creation and Role Provisioning

Manage users, user accounts, and provision roles to project labor resources. It's recommended that you use the Security Console to manage application security.

Page	It Enables You To
Manage Project Enterprise Resources	• Create project enterprise resources directly or from HCM persons. And, optionally request user accounts for project enterprise resources. • Manage personal details such as calendars, make resources eligible for project assignments to fulfill project resource requests, and specify rate details.

When you create users and provision roles, the application sends:

1. A request for a user account to Oracle Identity Management application.
2. An email notification to the resource after the provisioning is successful.

Assign a Resource as a Project Manager from the Manage Project User Provisioning Page

Suppose a project manager is on an unexpected leave and there's no other project manager on a project. In such cases, project application administrators can assign a project resource as the project manager for that project.

To assign a project resource as a project manager:

1. Go to the **Manage Project User Provisioning** page.
2. Select the project resource who must be assigned the project manager role.
3. Click **Actions** > **Assign Resource as Project Manager**.

After you add the resource as a project manager, the application ensures that the project resource has the Project Execution role. If the resource doesn't have the Project Execution role, the application provisions the Project Execution role.

Project Roles in Project Execution Management Applications

A project role is a classification of the relationship that a person has to a project, such as project manager, functional consultant, or technical lead. Project role for a user can vary from one project to another.

For example, Mary can be a Business Analyst for one project and a Project Coordinator for a another project.

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A project role has two components:

- Enterprise role: Each project role is associated with one enterprise role. The enterprise role associated with a project determines the functional and data access on the project. This access is project-specific and won't apply to other projects.

  > **Note:** Multiple project roles can be associated with the same enterprise role.

- Qualifications and keywords: Each role can be associated with multiple qualifications and keywords. These are used to associate competencies to the project role. These are used by project managers and resource managers for managing resources.

Here's how project roles are used:

- To identify the type of work that a person performs on project assignments.
- To set up default resource qualifications.
- As criteria when searching for resources to fulfill project resource requests.
- As a resource's primary project role.
- To allow access to project management information for project managers.
- To identify the default staffing owner of project resource requests for a project.

Managing Project Roles

You can either use the predefined roles or create custom roles. The application provides predefined project roles such as Project Manager and Team Member. Project application administrators can create custom project roles and manage all project roles using the **Manage Project Roles** task.

For predefined roles, project application administrators can:

- Edit enterprise role.
- Manage qualifications and keywords.

For custom roles, project application administrators can:

- Edit project role name, enterprise role, and description.
- Manage qualifications and keywords.
- Specify from date and to date.

Considerations for Managing Project Roles

Here are some considerations for managing project roles.

- You can't delete predefined project roles.

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- You can't delete custom project roles that are:

  - Designated as resources' primary role

  - Specified on a project resource request

  - Assigned to a resource on a project

  - The default qualifications, proficiency, and keywords associated with a project role automatically appear as requirements on a project resource request when project managers select the project role for the request.

Primary Project Roles

You can designate a primary project role for a resource that represents the work that the resource typically performs on project assignments.

Here's how a resource's primary project role is used:

- As a resource search option filter when viewing resources on the Search and Evaluate Resources page in the Resource Management work area

- When comparing the attributes of multiple resources against the requirements specified in the project resource request on the Compare Resources page

Calendars

Calendars, also known as schedules, define the standard working and nonworking time for projects and resources to which they're assigned. Working times are the days and total hours in a calendar during which work can occur.

Nonworking times in a calendar are days and total hours for which work isn't scheduled, such as weekends and holidays.

Project application administrators can create calendars from the Manage Project Schedules page. Keep in mind that projects and resources can use only calendars with the Elapsed schedule type with one workday pattern of 7 days and one project shift.

A calendar consists of the following components:

- Shifts: A shift is a period of time that can be defined by a start and end time, or duration. Only one shift per day is supported in Project Execution Management or Project Resource Management.

- Workday Patterns: A workday pattern is a collection of one or more shifts for a specific number of days. A pattern repeats itself for a date range to define the complete schedule.

- Schedule Exceptions: A schedule exception is a deviation from the schedule. The two types of exceptions are off period exceptions and work period exceptions. Off period exceptions convert working days to nonworking days. And, work period exceptions convert nonworking days to working days. Also, keep in mind that only full day exceptions are supported.

Assign Calendars to Projects

A project manager can assign a calendar to a project during project creation or when managing the project plan. The working days and total hours in the calendar are used to schedule the project plan. Project managers can also create events on the project calendar such as PTO, training, and team building activities.

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Assign Calendars to Resources

Project application administrators can select a resource calendar when creating or editing a project enterprise resource. The working days and total working hours in a resource calendar are used to determine resource availability.

The Project Resources work area uses the resource calendar to determine a resource's available hours for a project. The Update Resource Utilization Data process calculates the resource's projected utilization with the available hours.

Set up Default Calendar Assignments

Project application administrators can select a default project calendar and resource calendar on the Define Project Management Implementation Options page. The default project calendar is automatically assigned to new projects, and the default resource calendar is automatically assigned to new project enterprise labor resources.

If you don't set up a default project or resource calendar, a predefined calendar with 8 hours per day, 5 days per week will be assigned. In the predefined calendar, working days are from Monday to Friday.

| **Note:** The standard calendar is predefined and you can't modify it.

Related Topics

- What's the difference between project calendars and resource calendars?
- Create Calendars for Projects and Resources

FAQs for Calendars

What happens if project resource request dates are outside the resource calendar effective dates?

The application can't calculate a resource's available capacity if the project resource request dates are outside of the resource calendar effective dates. The resource will have no Available Capacity score.

Project Enterprise Resources

Project Enterprise Resources

Project enterprise resources (PER) are labor or expense resources that you can assign to a project.

You need a PER resource to:

- Assign the resource to a project
- Assign the resource to a project task

- Assign owners to project deliverable and project issues

- Search for resources to fulfill a request in Project Resource Management

Project Enterprise Labor Resource

A project enterprise labor resource is a human resource that you assign to one or more projects. You can also enable the labor resource for staffing in Project Resource Management.

Related Topics
- Resource Pools

Project Enterprise Expense Resources

A project enterprise expense resource is a resource that you can use to manage expense resources and assign them to projects or tasks. You can:

- Use predefined project enterprise resource expense type options

- Create your own expense resource type

- Create from existing expenditure type resources in Project Foundation

Set up Conditions and Import HCM Person

Configure conditions to import employees and contingent workers from HCM into the Project Resources and Project Management work areas.

You can set up the conditions using the Manage Project Enterprise Labor Resource Maintenance Conditions task in the Setup and Maintenance work area:

- Offering: Project Execution Management

- Functional Area: Project Resource Management

This image shows you the options for setting up the conditions and importing the HCM person records:

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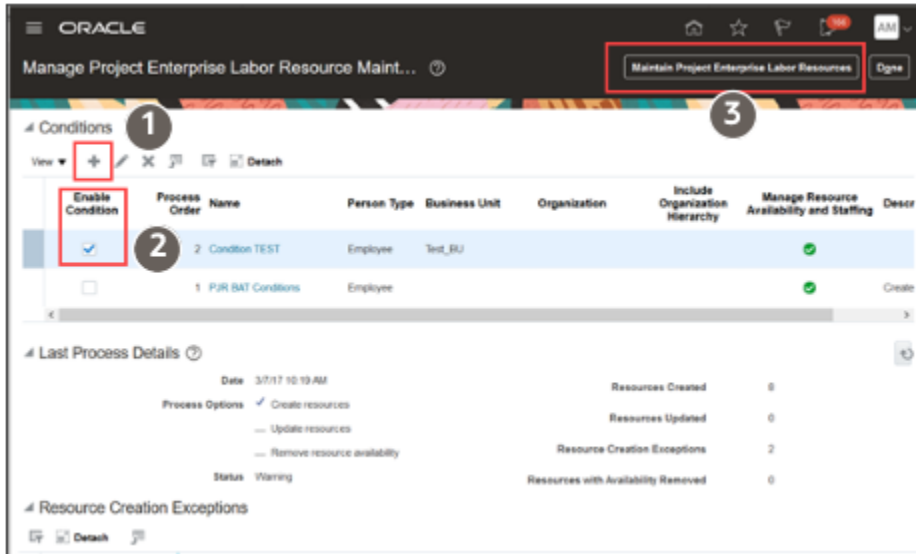
This table takes you through the process of setting up conditions and applying them while importing HCM person.

Callout Number	UI Element	What to do
1	**Create Conditions**	1. Specify a name and process order for the condition. The process order determines the order in which the Maintain Project Enterprise Labor Resources process applies the conditions. 2. Specify HCM person criteria that's imported along with the HCM persons. You can import criteria such as person type, business unit, job, and organization. 3. Select the **Include organization hierarchy** check box to include a hierarchy under the organization **Note:** You set up organizations and organization hierarchy in the HCM workforce structures implementation. 4. Select the Manage resource availability and staffing check box to enable the project enterprise resource for staffing in Project Resource Management.
2	**Enable Condition**	By default all the conditions are enabled. The conditions are applied in the process order that you have set while creating or editing the condition..
3	**Maintain Project Enterprise Labor Resources**	Select to run the process to import the HCM employees and contingent workers. The process applies the conditions that you enabled.

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Callout Number	UI Element	What to do
		Run this process: • Create resources from employees or contingent workers in HCM. • Update the existing project enterprise labor resource details with the resource attributes in HCM. • Remove resource availability for staffing from employees who have no active primary assignment in HCM. The application launches the Maintain Project Resource Search Index Job Set process to update the search index that enables resources to appear on the Search and Evaluate Resources page when searching for resources to fulfill project resource requests. Alternatively, you can also run the Import HCM Persons as Project Enterprise Resources process from **Navigator** > **Scheduled Processes**.

Related Topics
- Manage Maintenance Conditions for Project Enterprise Labor Resource
- Project Enterprise Labor Resources Report

Project Enterprise Labor Resources Report

Review the project enterprise labor resources that were imported or updated after running the Maintain Project Enterprise Labor Resources process. The report provides a summarized view for items that were processed successfully, with warnings, and with errors.

The report also provides detailed descriptions along with error messages for ineligible resources that weren't processed. Review and take action on any errors that occurred while running the Maintain Project Enterprise Labor Resources job.

Open the report from either the Scheduled Processes page or the Reports and Analytic work area.

To obtain results for this report, you must:

- Have a project enterprise labor resource maintenance condition already created in the Setup and Maintenance work area.
- Submit the Maintain Project Enterprise Labor Resources job.

Report Results

The following sections are included in the Maintain Project Enterprise Labor Resources report:

- Error Report

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- Message Details
- Success Report for Imported Project Enterprise Labor Resources
- Success Report for Updated Project Enterprise Labor Resources

Error Report

Contains a list of all HCM persons in the project enterprise labor resource maintenance condition who weren't imported during the job. To understand the reason for each error, review the message name and message details..

Message Details

Describes the details of error messages associated with each ineligible HCM person who wasn't imported during the job. Use this information to research and resolve the conditions that prevented the creation or update of project enterprise labor resources.

Success Report for Imported Project Enterprise Labor Resources

Contains a list of each new project enterprise labor resource that was created from an HCM person during the job. To obtain results in this section, you must select the option to create resources when you submit the Maintain Project Enterprise Labor Resources job.

Success Report for Updated Project Enterprise Labor Resources

Contains a list of each project enterprise labor resource that was successfully updated due to a change in the person's HCM attributes. To obtain results in this region, you must select the option to update resources when you submit the Maintain Project Enterprise Labor Resources job.

Related Topics
- Process Output Reports

Import Project Enterprise Resources

The Import Project Enterprise Resources process creates resources based on data from third-party applications that you load into the Project Enterprise Resource Interface table (PJT_PRJ_ENT_RES_INTERFACE).

The Import Project Enterprise Resources process:

- Validates and creates project enterprise labor or expense resources in Project Management based on the data that you load into the interface table
- Creates user accounts for labor resources
- Assigns default project roles to labor resources
- Reports process exceptions for invalid resources in an output report

To import resources:

1. Prepare data for loading and importing by using the Project Enterprise Resources Import Template or Project Enterprise Expense Resources Import Template macro-enabled Excel workbooks.
2. Click **Generate CSV File** in the templates to create worksheets to load to the interface table.

   Optionally bypass the Excel templates and manually create CSV files.
3. From the Scheduled Processes page, run the Load Interface File for Import process followed by the Import Project Enterprise Resources process.

For more information about file-based data import, see the File Based Data Import for Oracle Project Portfolio Management Cloud guide.

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Import Project Enterprise Resources Execution Report

The Import Project Enterprise Resources Execution Report summarizes the number of successful transactions and errors encountered when you imported the resources. If the report has error messages, then:

1. Review the error message details for each resource and fix the issues.
2. Load the data that you fixed in the CSV file into the interface table again.
3. Resubmit the Import Project Enterprise Resources process.

Related Topics
- Overview of External Data Integration Services for Importing Data

Manage Project Enterprise Resources

You can create, view, or edit details of an enterprise resource using the Manage Project Enterprise Resources task in the Setup and Maintenance area.

- Offering: Project Execution Management
- Functional Area: Project Execution

Here's what you need to know to create a labor resource:

Tab	What you need to do
Resource Details	• **Create From HCM Person**: Creates a project enterprise labor resource from an employee or contingent worker in Oracle HCM. Then search the resource that you want to create from the list of HCM persons. **Note:** The employee or contingent worker must have a unique email in a valid format and be an active primary assignment in HCM. • **Request User Account and Provision Project Roles**: Requests a user account for a new resource and provision the resource with default role assignments. You can request a user account only for a resource who isn't associated with an employee or contingent worker in HCM.
Resource Management Details	• **Manage Resource Availability and Staffing**: Makes the resource available for staffing in project resource management and to fulfill project resource requests. • **Cost Rate**: The rate for a unit of work that determines the cost for a resource on a project. To calculate the resource cost amount, the application multiplies the resource's labor effort in hours on the project by the resource's cost rate. • **Bill Rate**: The rate for a unit of work that determines the invoice or revenue recognized amount for a resource on a project. To calculate the bill amount for a resource on a project, the application multiplies the labor effort by the project resource bill rate.

> **Note:** When you add a planning resource to a project, the application copies the resource cost and bill rates to the project if the resource rate currency is the same as the project currency. You can edit planning resource rates directly on the project. You can edit rates for assigned resources, or resources who have pending assignment adjustments, directly on the assignment. The new rates are reflected in the labor cost and bill amounts on the resource's tasks. Rate changes that you make on the project or assignment don't affect the rates on the resource definition.

Here's what you need to know to create an expense resource:

UI Name	What you need to do
Create from expenditure type	Create an expense resource from expenditure type planning resources created in Oracle Project Foundation.
Expenditure Type	Select from the types of expenses on projects or tasks. You can link to existing expenditure types for expenses that are used regularly including hotel, airfare, and meals. You can't edit predefined expenditure types.

Update HCM Information for a Project Enterprise Resources

To update project enterprise resource information from HCM:

1. Select the resources on the Manage Project Enterprise Resources page that you want to update.
2. Select the **Update Information from HCM** action. The process updates the following resource information from information in HCM:

   - Name
   - E-mail
   - Manager
   - Phone
   - Image

Overview of Cost and Bill Rates

A project resource request can contain the following resource rates:

- Target cost and bill rates: Project managers can specify target cost and bill rates on a project resource request. Rates are optional on the request.

- Resource cost and bill rates: When you specify a resource for a request, the application copies the resource's cost and bill rates to the request.

The resource rate types are:

- Cost Rate: The rate for a unit of work that determines the cost for a resource on a project.

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- Bill Rate: The rate for a unit of work that determines the invoice or revenue recognized amount for a resource on a project.

Units of work are stated in hours.

Project assignment rates provide the data to calculate labor resource cost and bill amounts for analyzing margins and revenue forecasts. Resource and project managers can adjust the rates on project assignments to provide the most current reporting information.

You can define cost and bill rates for a resource in the **Manage Project Enterprise Resources** > **Create Project Enterprise Resource** . You can also define rates when importing resources from external sources such as third-party applications.

For financially-enabled projects, Project application administrators can setup cost rate schedules or define project overrides and bill rates at the contract-level.

FAQs for Project Enterprise Resources

How can I enable a project enterprise resource for availability and staffing?

A project enterprise labor resource is a resource that you can assign to multiple projects. A managed project enterprise labor resource is a project enterprise labor resource whose availability and staffing are managed in Oracle Fusion Project Resource Management. You use managed project enterprise labor resources to fulfill project resource requests and directly assign to one or more projects.

How can I assign project roles by default when I import project enterprise labor resources?

Here are the steps to assign project roles by default when project enterprise labor resources are imported:

1. Open **Manage Project User Provisioning** > **Default Provisioning Attributes** and click **Edit**.
2. In the **Default Role Assignments** section, select all roles that must be provisioned by default.
3. In the **Default Project Role Provisioning for Project Execution Management Labor Resources** section, select **Automatically provision roles when mass creating project enterprise labor resources**.

The application automatically assigns the selected predefined and custom roles when you create project users using any of these methods:

- The Maintain Project Enterprise Labor Resources process

- Project Enterprise Resource REST API

- The Import Project Enterprise Resources file-based data import process

How can I remove a role from a resource?

Here are the steps to remove a role from a resource:

1. Open the **Manage Project User Provisioning** page and search for the resource.
2. Select the resource and click **Edit**.
3. In the **Role Details** dialog box, select the role that you want to remove and click the **Remove** button.

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Oracle Fusion Cloud Project Management
Implementing Project Execution Management

Chapter 2
Define Common Project Execution Management Options

Can I edit the name and email for a project enterprise labor resource?

You can edit a resource name and email if the resource was created in Oracle Fusion Project Management, doesn't have a user account, and isn't an employee or contingent worker.

You can't edit the name and e-mail once you start the process to create a user account and provision roles for the resource.

What happens to the search index if I revise a resource resume?

You must run the Maintain Project Resource Qualification Index process often enough to accommodate new and revised resumes.

If you revise a resume attachment, and don't run the index process, then the UI will display the new resume even though the search index still contains the old resume. Run the process to add the new resume to the search index and remove the old resume.

Application Composer

Configure Project Execution Management Applications

A project application administrator can add additional attributes to standard objects or create new custom objects to meet specific business needs using Application Composer. In Project Execution Management applications, using a sandbox, you can configure project resource requests, assignments, deliverables, issues, and backlog items.

For example, you can add an issue category attribute to drive additional information that you need to collect for a particular type of issue in the standard Issues object. You can also create a custom Risk object to capture and track risks.

After you create a custom object, you can:

- Use the REST service to create, view, and update the custom object.
- Create a new subject area to report on the custom object.

Since your organization can view the changes you make at runtime immediately, you must first create or select a sandbox and isolate your changes. A sandbox provides an independent development environment so that you can fully test your changes before publishing the sandbox and making the changes available to your organization.

Navigate to Application Composer from **Tools** and select **ERP and SCM Cloud** in the Application field. You can view the objects for Project Execution Management applications under **Standard Objects** menu.

Standard Objects Available for Configuration

The following table summarizes the objects, pages, and regions that you can configure. The objects listed here are available in Application Composer for configuration.

Standard Object	Corresponding Page or Region	Maximum Custom Attributes Allowed
Project Resource Assignments	• Create Project Resource Assignment page in Project Resources work area	200 Number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List)

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Standard Object	Corresponding Page or Region	Maximum Custom Attributes Allowed
	• Edit Project Resource Assignment page in Project Resources work area	350 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 50 Time stamp (Any combination of Date, Date Time) 25 Character Large Object (Any long text)
Project Resource Requests	• Manage Project Resource Request page in Project Management work area • Manage Project Resource Request page in Project Resources work area • Create and Edit Project Resource Request page in Project Management work area • Create and Edit Project Resource Request page in Project Resources work area	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)
Project Issues	• Create and Edit Issue page in My Work work area • Create and Edit Issue windows in Team Member Dashboard Issues section	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)
Project Deliverables	Create and Edit Deliverables page in My Work work area	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)
Backlog Items	Manage Backlog Items page	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)
Project Change Orders	• Create Change Order page in both the Project Management and My Work work areas • Edit Change Order page in both the Project Management and My Work work areas	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)

Standard Object	Corresponding Page or Region	Maximum Custom Attributes Allowed
Project Change Order - Impact Assessments	Add Impact and Edit Impact dialog boxes in both the Project Management and My Work work areas	50 number fields (Any combination of Number, Percentage, Currency, Dynamic Choice List) 100 Variable character fields (Any combination of Text, Check box, Fixed Choice List) 20 Time stamp (Any combination of Date, Date Time)

Create a Text Field

Use Application Composer to add a text field to an existing Projects object as per your business requirement.

Note: Once you create a field, you can't change the field's **Name** and **API Name**. Even if the Display Label changes, the name used to refer to this field in Groovy expressions doesn't change.

Adding a Text Field

Use the following steps to create a text field.

1. Ensure that you're working in a sandbox.
2. Click **Navigator** > **Tools** > **Application Composer**.
3. Select **ERP and SCM Cloud** from the Application list, enable PPM as the Object Tags and expand **Standard Objects**.
4. Expand any of the following objects and click **Fields** to add a text field:

   - Backlog Item
   - Project Deliverable
   - Project Issue
   - Project Resource Request

   We will explain the following steps to show how a text field is added to the Project Resource Request object for Project Management work area.
5. Click the **Fields** link under the Project Resource Request object.
6. In the Custom tab, click the **Create a custom field** icon.
7. In the Select Field Type window, select **Text** and click **OK**.
8. In the Create Text Field page, enter the information for the field. You must enter values for the Display Label and Name fields. The attributes for the text field are described in the following table.

Property	Description
Display Label	Display label for the field. For example, create a text field named Travel Location.

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Property	Description
Help Text	Information displayed in the tool tip.
Display Width	Character width for the text field.
Display Type	Determines the type of text field displayed to the users. You can choose Simple Text Box that's a single-line text field, or Multiline Text Area, a larger text area that spans multiple lines.
Name	Unique identifier for the field. This field is used for internal purposes and not displayed to the users. The Display Label is the default value for this field but you can change the name. The application programming interface (API) name that you use to identify the field in Groovy expressions is derived from this name.
Description	Optional description of the object. This field is used for internal purposes.
Required	Indicates if the field is required. Optionally, use the expression builder to write an expression that specifies when the field must be required.
Updatable	Indicates if the field is updatable. Optionally, use the expression builder to write an expression that specifies when the field can be updated.
Searchable	Indicates whether to make the field available for selection as additional search criteria in the Add Fields list in Advanced Search mode.
Depends On	Indicates the fields whose data changes will cause the field's constraint expressions to be re-evaluated.
Minimum Length	Indicates the minimum number of characters allowed in the text field.
Maximum Length	Indicates the maximum number of characters allowed in the text field.
Fixed Value	Literal default value for the field. Do not enter a fixed value if the field is both required and intended to be unique because that causes runtime errors.
Expression	Expression that dynamically sets the default value.

9. Click **Save and Close**. You can view the new text field (Travel Location) under the Custom tab on the Fields page.
10. Expand the Project Resource Request object and click the **Pages** link.

11. On the Project Resource Requests: Pages page, click the **Duplicate** icon in the Landing Page Layouts section of the Project Management work area.
12. In the Duplicate Layout window, enter the new layout and source layout name. For now, keep the new layout name and the source layout to the default value.
13. Click **Save and Close**. You can now see the **Default custom layout** link under the Landing Page Layouts section of the Project Management work area.
14. Click the **Default custom layout** link from the Landing Page Layouts section of the Project Management work area.
15. On the Landing Page Layout: Default custom layout page, click the **Edit** icon next to the Project Resource Requests Table in Project Management work area heading.
16. In the Configure Summary Table section, select the new text field (Travel Location) from the Available Fields table and move it to the Selected Fields table.
17. Click **Save and Close**. You can now see the new text field (Travel Location) on the Project Resource Requests page in the Project Management work area.

Note: After you make your changes in a sandbox, work with your applications administrator to either delete or publish the sandbox. Deleting the sandbox reverts your changes. Publishing the sandbox applies the changes you made across your organization.

Create a Fixed Choice List Field

Use Application Composer to add a fixed choice list field for an existing Projects object as per your business requirements.

Note: The **Name** and **API Name** of a field can't be changed after it's created. Even if the Display Label changes, the name used to refer to this field in Groovy expressions doesn't change.

Creating and Describing the Fixed Choice List Field

Use the following steps to create and describe a fixed choice list field.

1. Ensure that you're working in a sandbox.
2. Click **Navigator** > **Tools** > **Application Composer**.
3. Select **ERP and SCM Cloud** from the Application list, enable PPM as the Object Tags and expand **Standard Objects**.
4. Expand any of the following objects and click **Fields** to add a fixed choice list:
   - Backlog Item
   - Project Deliverable
   - Project Issue
   - Project Resource Request

   We will explain the following steps to show how a fixed choice list field is added to the Project Resource Request object for Project Management work area.
5. Click the **Fields** link under the Project Resource Request object.
6. In the Custom tab, click the **Create a custom field** icon.

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7. In the **Select Field Type** window, select **Choice List (Fixed)**, and click **OK**.
8. In the Create Fixed Choice List page, enter the basic information for the field, such as **Display Label**, **Name**, and the **Constraints**.
9. Select the display type:

    ○ If the users can select only one value, then select **Single Select Choice List**.

    ○ If the users can select multiple values, then select **Multiple Select Choice List**.

    For example, create a single select choice list named Travel Required for Project Resource Request in Project Management work area with values Yes and No.
10. If the lookup type was previously defined, click the Search and Select Lookup Type icon next to the Lookup Type field, search for the lookup type, select it, and click **OK**. Otherwise, create the lookup type as described in the next section.
11. Click **Save and Close**. You can view the new fixed choice list field (Travel Required) under the Custom tab on the Fields page.
12. Expand the Project Resource Request object and click the **Pages** link.
13. On the Project Resource Requests: Pages page, click the **Duplicate** icon in the Landing Page Layouts section of the Project Management work area.
14. In the Duplicate Layout window, enter the new layout and source layout name. For now, keep the new layout name and the source layout to the default value.
15. Click **Save and Close**. You can now see the **Default custom layout** link under the Landing Page Layouts section of the Project Management work area.
16. Click the **Default custom layout** link from the Landing Page Layouts section of the Project Management work area.
17. On the Landing Page Layout: Default custom layout page, click the **Edit** icon next to the Project Resource Requests Table in Project Management work area heading.
18. In the Configure Summary Table section, select the new fixed choice list field (Travel Required) from the Available Fields table and move it to the Selected Fields table.
19. Click **Save and Close**. You can now see the new fixed choice list field (Travel Required) on the Project Resource Requests page in the Project Management work area.

Creating the Lookup Type

If the lookup type isn't defined, then use the **Create Lookup Type** window to add lookups and to specify the list of values. Note that you can reuse lookup types for other fields.

> **Note:** Although you're working in a sandbox, lookup types are created outside of a sandbox and become part of the mainline metadata.

1. Click the **Create a New Lookup Type** icon that's displayed next to the Lookup Type field.
2. Enter the lookup type properties listed in the following table.

Property	Description
Meaning	Unique name for the lookup type. Use a name that enables others to search for a lookup type that meets their needs for other fixed choice fields.
Description	Optional description that enables others to determine if the lookup type meets their needs for other fixed choice fields.

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Property	Description
Lookup Type	Unique internal identifier for this lookup.
Lookup Code	Value for the lookup type.

3. In the **Lookup Codes** table, from the **Action** menu, click **Create** to add an item to the list of valid values. For the fixed choice list field (Travel Required) you need to create the values, Yes and No.
4. In the **Meaning** column, enter the value to display in the list of valid values. The value must be unique to the list.
5. In the **Lookup Code** column, enter the internal code for the item. The value must be unique to the list. Use headline case without spaces to make it obvious in Groovy scripts that the lookup code isn't a string displayed in the interface.
6. Enter the Display Sequence and Description for the lookup code.
7. Create additional items to complete the list.
8. Click **Save**.
9. Click **Save and Close**. The fixed choice list field (Travel Required) is displayed on the Project Resource Request page in the Project Management work area.

Note: After you make your changes in a sandbox, work with your applications administrator to either delete or publish the sandbox. Deleting the sandbox reverts your changes. Publishing the sandbox applies the changes you made across your organization.

Create a Projects Custom Object

This example shows how to create a projects custom object using Application Composer. You can create:

- An entirely new object (work area) to capture additional business requirements for your organization.
- A child object under an existing standard object or the newly created custom object.

This table contains a summary of key decisions.

Decision to Consider	In this Example
Why you need a custom object?	• To track data for an object that isn't delivered with Oracle Project Portfolio Management Cloud. • To capture and track risks using the new Project Risk object.
Which users will have access to the custom object?	• Decide which users should have access to custom object and whether it maps to existing roles the users have or if you need to create a new custom role. • In this example, the implementor will get access to the new object to illustrate the capabilities.

Prerequisites

- You must be a project application administrator (ORA_PJF_PROJECTS_APPLICATION_ADMINISTRATOR_JOB) with the ZCX_MANAGE_EXTENSIBLE_OBJECT_PRIV privilege.
- You must create or select a sandbox and create custom object within it.

Custom Project Risk Object

Creating custom Project Risk object involves:

1. Creating the custom Risk object.
2. Adding pages to the custom Risk object.
3. Adding fields to the pages within the custom Risk object.
4. Adding action links to the pages.
5. Adding child objects and linking them to the custom Risk object.
6. Adding the custom Risk object to the Project Portfolio Management work area.

Creating a Custom Object

The following steps explain how to create a custom object named Project Risks.

1. Navigate to **Tools** > **Configuration** > **Application Composer**.
2. From the Application drop-down, select **ERP and SCM Cloud**.
3. Under Objects menu, click the **Create** icon next to Custom Objects.
4. Enter the information for your new object.

Field	Field Value
Display Label	Project Risk
Plural Name	Project Risks
Record Label Name	Project Risk Name
Record Name Data Type	Text
Prevent Duplicate Values	Enable
Treat "ABC" and "Abc" as distinct values	Disable
Object Name	ProjectRisk<yourinitials>. For example, ProjectRiskMP
Description	As required

5. Click **OK**. The application creates the object. Note the Name as it is required to identify privileges and the API.

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6. Select the **Change Icon** link to select an icon that will appear in the Navigator.
7. Select a display icon of your choice for the object.

Adding Fields to the Project Risk Custom Object

The following steps explain how to add fields to the Project Risks custom object.

1. Under **Objects** > **Custom Objects** > **Project Risk**, click Fields.
2. Click the **Create a custom field** icon.
3. Create the following fields. See the procedures in related links for creating fields.

Field Name	Field Type
Risk Number	Number
Mitigate Date	Date
Risk Description	Long Text
Severity Values: Low, High, and Medium	Fixed Choice List
Risk Percentage	Percentage
Project Name	Text
Escalated to Management	Check box
Status Values: New, Working, and Resolved	Fixed Choice List

Creating an Action for the Project Risk Custom Object

1. Under **Objects** > **Custom Objects** > **Project Risk** > **Actions and Links**, select **Pages**.
2. Click the **Create** icon.
3. Enter the action information as mentioned in the following table.

Field Type	Values
Display Label	Review Risk Policies
Name	Review_Risk_Policies

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Field Type	Values
Type	Link
Description	Description for the Action Link.
Source	URL
Display Mode	New Window
URL Definition	https://en.wikipedia.org/wiki/Project_risk_management

4. Click **Save**.

Creating Deep Link for the Project Risk Custom Object

The following are the steps for creating a deep link for the custom object to open a project. You can use similar steps to create a deep link a different element.

1. Under **Objects** > **Custom Objects** > **Project Issues**, click **Actions and Links**.
2. Click **Create**.
3. In the **Depends On** drop-down, select the name of the custom object on which you want to apply the deep link.
4. Enter the Deep Link information as mentioned in the following table:

Field Type	Value
Display Label	Link To Project
Name	Link_To_Project
Type	Link
Description	A description for the deep link.

Edit Script	`def EditURL = "https://<Host Name>/`
	`fscmUI/faces/deeplink?objType=PROJECT_`
	`MANAGEMENT&&objKey=projectId=<ProjectId>&action=NONE"return EditURL;`

> **Note:** Enter the **hostname** and **project ID** relevant to project that you would want to open using the deep link. For more information on components and formulation of deep links, see *Deep Links for Project Management*.

5. Click **Save**.
6. For the deep link object to appear on the UI, ensure:
   - The required landing and creation page layouts for displaying and handling the custom object are in place. For more information, see Application Pages for Custom Objects in the Configuring Applications Using Application Composer guide. To create or retrieve the custom object data, instead of the page

layout, you can use the rest service. For more information, see Manage Custom Objects in the REST API for Oracle B2C Service guide.

- ○ The PPM object tag is added to the relevant display page.

- ○ The custom object page entry is linked to the structure of your application page. For more information, see Configure Links for Page Entries in the Configuring and Extending Applications guide.

- ○ The sandbox is published.

Creating Pages for the Project Risk Custom Object

1. Under **Objects** > **Custom Objects** > **Project Risk**, click **Pages**.
2. Click **Create Default Pages**.
3. In the Landing Page Layouts section, click the **Default custom layout** link.
4. Click the **Edit** icon next to the summary table.
5. Configure the summary table. Select the following fields and enable them to display in the summary table. Do not display the Risk Description by default.

   - ○ Project Risk Name
   - ○ Risk Number
   - ○ Project Name
   - ○ Status
   - ○ Severity
   - ○ Risk Percentage
   - ○ Creation Date
   - ○ Mitigate by Date
   - ○ Risk Description (Hidden)

6. Configure the buttons and actions.

   - ○ Toolbar
     - Create
   - ○ Actions menu
     - Export
     - Update

7. Configure Mass Edit Fields

   - ○ Mitigate by Date
   - ○ Risk Percentage
   - ○ Severity
   - ○ Status

8. Click **Save and Close**.
9. Click **Done**.
10. In the Creation Page Layouts section, click the **Default custom layout** link.
11. Click the **Edit** icon.
12. Select the creation page fields:

    - ○ Review Risk Policies- Link

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- Project Risk Name
- Project Name
- Risk Number
- Status
- Severity
- Risk Percentage
- Escalated to Management
- Mitigate by Date
- Risk Description
- Risk Mitigation Strategy

13. Click **Save and Close**.
14. Click **Done**.
15. In the Details Page Layouts section, click the **Default custom layout** link.
16. Select the **Edit** icon for the main subtab and again select the creation page fields.
17. Click **Save and Close**.
18. Click **Done**.

Creating a Child Object for the Project Risk Custom Object

1. Under **Objects** > **Custom Objects**, click the **Default custom layout** link.
2. Click **Create Child Object**.
3. Enter the information for your new object.

Field	Value
Display Label	Risk Log
Plural Name	Risk Logs
Record Label Name	Risk Log Name
Record Name Data Type	Risk Log Name
Prevent Duplicate Values	Enable
Treat "ABC" and "Abc" as distinct values	Disable
Object Name	RiskLog<yourinitials>. For example, RiskLogMP
Description	As required

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Field	Value
Parent Object	Project Risk
Child Collection Name	RiskLogCollection

4. click **OK**.
5. Click **OK** and wait for the application to create the object.
6. Click the **Change Icon** link to select an icon for the child object that will appear in the Navigator.
7. Select an icon of your choice.

Adding Fields to the Risk Log Child Object

1. Under **Objects** > **Custom Objects** > **Project Risk** > **Risk Log**, click **Fields**.
2. Click the **Create a custom field** icon.
3. Create the following fields. See the procedures in related links to create fields.

Field Name	Field Type
Log Date	Datetime Field
Log Entry	Text

Related Topics
- Create a Text Field
- Create a Fixed Choice List Field

Create a Dynamic Choice List

You can create a custom dynamic choice list field by referencing the objects such as, project, task, deliverable, issue, requirement, backlog, resource, or resource request. Then add it to a custom object or to an existing standard object.

Imagine that you add an issue auditor based on the project enterprise resource to the Project Issue standard object.

1. Ensure that you're working in a sandbox.
2. Click **Navigator** > **Configuration** > **Application Composer**.
3. Select **ERP and SCM Cloud** from the Application list and enable **PPM** as the Object Tags.
4. Expand the standard object or custom object to which you want to add a dynamic choice list. For example, expand Project Issue.
5. Click the **Fields** link under the object.
6. In the Custom tab, click the **Create a custom field** icon.
7. In the Select Field Type window, select **Choice List (Dynamic)**, and click **OK**.
8. In the Create Dynamic Choice List page, enter the basic information for the field, such as **Display Label**, **Name**, and the **Constraints**. For example, enter Issue Auditor in the Display Label field.

9. Click **Next** to navigate to the page where you create a dynamic choice list for the field.
10. From the Related Object list, select the object based on which you want to create the dynamic choice list. For example, select Project Enterprise Resource.
11. From the List Selection Display Value list, select the option that should appear on the UI as values for the dynamic choice list field. For example, Name.
12. Click **Submit**. You can now see the dynamic choice list field under the Custom tab on the Fields page
13. Click the **Pages** link under the object.
14. On the Pages page, click the **Duplicate Creation Page Layout** icon under the work area where you want to add the dynamic choice list.
15. In the Duplicate Layout window, enter the new layout name and click **Save and Close**. You can now see the **Default custom layout** link under the Landing Page Layouts section of the selected work area. You can also click **Save and Edit** instead and go directly to step 17.
16. Click the **Default custom layout** link from the Landing Page Layouts section of the Project Management work area.
17. On the Landing Page Layout: Default custom layout page, click the **Edit** icon next to the work area name.
18. In the Configure Summary Table section, select the dynamic choice list field you just created from the Available Fields table and move it to the Selected Fields table.
19. Click **Save and Close**.
20. Click **Done**. The dynamic choice list field now appears in the selected work area.
21. Go to the work area, test your changes, and publish the sandbox.

Create a Dependent Dynamic Choice List

You can create a dependent dynamic choice list where the value of one dynamic choice list is dependent on another dynamic choice list. As a prerequisite you must create two dynamic choice lists. Suppose you:

- Create Tracking Project field based on Related Object Project under the Project Issue standard object.

- Create Tracking Task field based on Related Object Project Task under the Project Issue standard object.

1. Open a dynamic choice list field in edit mode. For example, Tracking Task.
2. In the **Basic Information** > **Constraints** > **Depends On**, select the first dynamic choice list. For example, Tracking Project field.
3. Click **Next**.
4. On the List of Values page, in the Data Filter section, enable **Advanced Filter**.
5. Click **Add Bind Variable** and select **Create new bind variable** option.
6. Enter a variable name and click **OK**. For example, enter Project_Name.
7. Click **Add Search Field** and select a value from the list. For example, select the value Project_Name. The value displays in the text box below the Add Search Field.
8. Append equal to (=) sign to the value in the text box below the Add Search Field . For example, Project_Name=.
9. Click **Add Bind Variable** and select the value created in step 6. The text box below the Add Search field now shows an expression. For example, Project_Name=:Project_Name.
10. Once you create the expression, you can view a table with the Variable Name and the Expression field.
11. Click the **xyz** icon below the Expression text box that opens the Expression Builder window.
12. In the Expression Builder window, click **Show/Hide Expression Palette** icon.
13. Open Fields tab.
14. Expand the object under which you created the dynamic choice lists and select a dynamic choice list. For example, expand Project Issue and select Tracking Project.

15. In the Fields table, select the field and click **Insert** to provide a value to the bind variable. For example, select Project Name field. An expression displays in the left pane.

16. Click **OK**.

17. Click **Submit**.

18. Add both the dynamic choice list to the appropriate pages. If you are adding fields to a standard object, then you will have to duplicate the predefined layout and edit the duplicate layout. For example, add the Tracking Project and Tracking Task field to the Manage Project Issues work area. You can now track an issue against a task within a specific project.

19. Go to the work area, test your changes, and publish the sandbox.

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3 Project Management Configuration

Overview of Project Management Configuration

In the Define Project Management Configuration activity, you configure Oracle Fusion Project Management to manage projects, tasks, requirements, deliverables, and resources, and to track and resolve issues. This activity contains advanced setup tasks that aren't required for a typical implementation of Project Execution Management applications.

This table lists the setup tasks in the Define Project Management Configuration task list.

Task or Task List	Description
Manage Project Management Implementation Options	Specify default attributes for the project enterprise such as calendars, progress exception thresholds, currency, FTE hours, and the email banner.
Manage Enterprise Project Codes	Create and update enterprise project codes to capture additional details on a project using a predefined value set, free text, or numeric data type.
Manage Enterprise Task Codes	Create and update enterprise task codes to capture additional details on a project task using a predefined value set, free text, or numeric data type.
Manage Issue Types	Create and update issue types such as the General issue type.
Manage Deliverable Types	Create and update deliverable types such as the General deliverable type.
Manage Attributes for Issues and Deliverables	Create and update attributes to capture additional details for issues and deliverables using a predefined value set, free text, or numeric data type.
Define Project Requirement Configuration	Configure Oracle Fusion Project Management to track requirements, such as features and backlog items, for products and product families.
Manage Project Management Messages	Review and manage messages for Oracle Fusion Project Management.
Manage Project Management Attachment Categories	Review and manage attachment categories for Oracle Fusion Project Management.

How You Enable Project Creation

Project managers should be able to create projects from the Project Management work area using the Create Project link from the Actions panel tab.

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However, if they can't see the links related to project planning in the Actions panel tab, here's how project application administrators can resolve the issue:

- If all the links related to project planning are unavailable, update the implementation status of the offering.

- If only the Create Project link is unavailable, add a privilege to the project manager.

Updating the Implementation Status of the Offering

If project managers don't have access to multiple links related to the project planning or change orders, then the project application administrator must:

1. Open Setup and Maintenance > Setup: Project Execution Management > Actions > Edit Implementation Status.
2. Change the status to Implemented or In Progress.

Adding a Privilege to the Project Manager

If project managers can't access the Create Project link, the project application administrator must assign the Create Project Work Plan privilege to the project manager. By default, the Create Project Work Plan privilege rolls up to the Project Execution job role.

Manage Project Statuses

Project statuses indicate a project-related business object's current stage within its lifecycle. They can influence what actions you can perform on a business object, and provide a way to analyze an object's progress.

Project statuses provide the following benefits to you. Note that not all status features are available for every status object.

- **Lifecycle Tracking**: Monitor the progress of objects through a predefined status lifecycle. For example, track a project through an initial idea (Draft), to completion (Closed).

- **Action Controls**: Allow or restrict specific actions depending on an object's status. For example, if a project is closed, new transactions should not be created.

- **Transition Approvals**: Control whether approval is required when an object transitions from one status to another. For example, whether a project requires approval before becoming active.

Project Status Components

Here are the components of project statuses:

- **Status Object**: A business object for which statuses can be managed in Oracle PPM Cloud. Predefined settings for each status object control the status-related functionality available, such as which status attributes can be updated.

- **Status Classification**:A grouping of statuses for each status object, predefined by Oracle PPM Cloud. Status classifications control default application behavior, such as which actions are permitted on an object.

- **Status** : The statuses of a business object. For each status object, Oracle PPM Cloud provides statuses out of the box. Some objects allow additional statuses to be defined (typically where direct changes to an object's status are permitted).

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Status Attributes

You can configure status attributes for some statuses, depending on the status object and status classification. Here are the attributes available for configuration:

- Initial status

- Next Allowable Status Type and Status Lifecycle

- Enable Workflow

- Status Action Controls

- Status Lifecycle

Initial Status

If you enable initial status, you can select a status as the initial status for an instance of a status object—for example, the starting status of a new project.

Next Allowable Status Type and Status Lifecycle

The next allowable status type determines which status(es) an instance of a status object can transition to. For example, if a project is in a draft status, it may only be transitioned to a submitted status, not directly to active.

- **All**: Can transition to any status.

- **None**: Can't transition to any status; it's in a terminal state.

- **Status**: Can transition to any of the configured next allowed statuses.

- **Status Classification**: Can transition to any status belonging to the configured next allowed status classifications.

In status lifecycle, you can define the next allowable statuses. Defining the next allowable statuses determines the status object process flow. For example, you can specify that a project with a Requested status can have the status changed to either Active or Rejected. This example shows two possible process flows for the project: Requested to Active status or Requested to Rejected status.

Enable Workflow

You can enable workflow for statuses. A workflow automates status changes and approvals. Let's look at an example of a workflow for a project:

- The project manager completes the project setup and changes the project status to "Submitted".

- The system automatically triggers the workflow, sending a notification to the designated approver (often the primary project manager).

- The approver reviews the project details and approves the status change.

- The workflow updates the project status to "Active" signifying the project's official kick-off.

After you enable workflow for a status, you can specify the following status attributes:

- **Status After Change Accepted**: The status assigned after approving a status change.

- **Status After Change Rejected**: The status assigned after rejecting a status change.

Status Action Controls

Status Action Controls determine the actions allowed for an instance of a status object in a given status. For example, when a project status is closed, you can't create new transactions. Whereas, by default, a project in an active status allows all actions.

Status Object-Specific Settings

Project Status

A project status indicates where a project is in its lifecycle and limits the actions that you can perform on the project at that stage.

Project status offers predefined system statuses. Here are the project statuses available by default:

- Draft
- Submitted
- Active
- Rejected
- Pending Close
- Closed

You can create your own project statuses for each status classification.

When you create your own project statuses, you can specify the following attributes for each status:

- Initial Status
- Next Allowable Status
- Enable Workflow
- Status Action Controls
- Status Lifecycle

Project statuses have the following Status Action Controls available:

- Adjust transactions
- Capitalize assets
- Capitalized interest
- Create burden transactions
- Create new transactions
- Summarize project data
- Progress reporting by team members

For more information on status attributes, see the *Status Attributes* section.

Progress Status

The progress status specifies the overall progress of a project, task, or resource. Progress statuses are used for reporting and don't control what you can do with a project. Here are the progress statuses available by default:

- On track

- At risk
- In trouble

You can't modify the predefined progress statuses, but you can create custom statuses to suit your specific needs.

Bill Transaction Status

A bill transaction status indicates where each transaction is within the billing lifecycle. Here are the bill transaction statuses available by default:

- Action pending
- Billed
- Error
- In progress
- Insufficient funds
- Nonbillable
- On hold
- Ready

Milestone Status

A milestone status indicates where a project milestone is within its lifecycle toward completion. Here are the milestone statuses available by default:

- Complete
- Completion approval requested (applicable only to billable milestone)
- In progress
- Not started
- Rejected

You can't create new milestone statuses or delete the predefined ones. You can update the Enable Workflow setting on the Completion approval requested milestone status. This is the only update allowed on the predefined milestone statuses.

Project Status Change Workflow

When the user sets a project to a workflow-enabled status, the application triggers the Project Status Change Approval workflow. This workflow then notifies configured assignees, who must approve or reject the status change, or seek more information if required. The default approval rules for this workflow route the approval to the primary project manager.

If the approval workflow is withdrawn or results in errors, the application reverts the project to the previous status. Errors can be viewed and rectified by the project application administrator on the Transaction Console page. If the issue persists, log a Service Request (SR) and attach the relevant diagnostic log file.

In the BPM Worklist tool, this workflow is called **ProjectStatusNotificationApproval**.
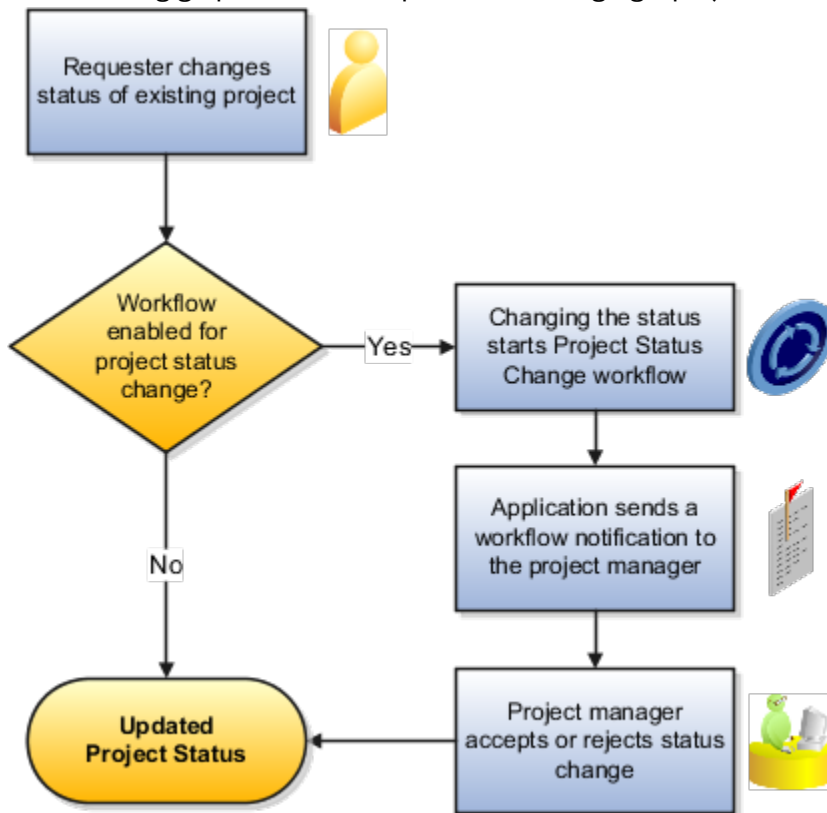
Project Status Change Approval Process

Here's a table that describes the Project Status Change Approval process.

Task No.	Agent	Description	Comments
1	Requester* *Project Manager. Project Administrator, or other roles with the privilege to change project statuses.	Users change the status of a project (through the UI or using REST API) to a workflow-enabled status, which triggers the workflow.	Statuses are enabled for workflow approval by project application administrators in the Manage Project Statuses task within Setup and Maintenance.
2	The Project Status Change Approval Workflow	The workflow sends notifications to all configured assignees using email or in-app notifications, as configured.	For detailed information on how you can change approval workflow notifications, see Workflow Notifications in the Implementing Common Applications guide.
3	Workflow Assignees	Assignees review the approval notification and approve or reject the project status change. Assignees may also ask for more information from the requester.	If the workflow uses parallel approvers, then the Voting Percentage rule is used to determine final approval. For detailed information on using BPM Worklist to update approval workflows, see Workflow Approvals and Notifications in the Implementing Common Applications guide. Also see How Invoices Are Approved in the Using Payables Invoice to Pay guide.
4	The Project Status Change Approval Workflow	The workflow updates the project status: • If the assignees **accept** the status change, the project status is set to the Status After Change Accepted attribute configured by the project application administrator. • If the assignees **reject** the status change, the project status is set to the Status After Change Rejected attribute configured by the project application administrator. If the new status is also workflow-enabled, another approval task is launched.	NA

If you previously configured the workflow for status changes of projects enabled for financial management and you want to extend the workflow to nonfinancial projects, then first review and update the workflow configuration as needed.

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The following graphic shows the process of changing a project status.

Configuring the Project Status Change Approval Workflow

Use the Manage Project Statuses task in Setup and Maintenance to enable or disable project statuses for workflow approval. Select the Enable Workflow checkbox for each project status that should trigger a workflow approval.

For each project status with workflow enabled, you must also specify the following attributes:

- Status After Change Accepted: The status the application assigns to the project after accepting a project status change.

- Status After Change Rejected: The status the application assigns to the project after rejecting a project status change.

Other rule changes you can make:

- The default approval rules in all the predefined rule sets are configured to send notifications to the primary project manager for approvals. You must review the predefined rules and modify them as required.

- You can disable participants that you don't want to use by enabling the **Ignore Participant** option or by defining a rule to ignore the participant.

Note: You must have the Projects Application Administrator job role (or another similarly privileged job role) to configure rules for this workflow.

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For example, assume that during implementation, you enable workflow for the Submitted status, and configure the following workflow attributes:

- In the **Status After Change Accepted** field for the Submitted project status, you specify the Active status as the status that the application assigns to the project when the status change is accepted.

- In the **Status After Change Rejected** field for the Submitted project status, you specify the Rejected status as the status that the application assigns to the project when the status change is rejected.

In this example, when a requester changes the project status to Submitted, the workflow process routes the status change request to the primary project manager's worklist. If the project manager accepts the status change, the workflow process assigns the Active status to the project. If the project manager rejects the status change, the workflow process assigns the Rejected status to the project.

The following graphic shows an example project status flow when using the Project Status Change workflow for status changes during the lifecycle of a project. In this example, a new project is created with an initial status of Unapproved. After ensuring all project details are correctly entered, a requester changes the project status to Submitted. The workflow sends a notification to the primary project manager, who accepts the status change. The workflow changes the project status to Active. After project completion, the requester changes the project status to Pending Close, which is another workflow-enabled status. A workflow sends a notification to the primary project manager, who again accepts the status change. The workflow changes the project status to Closed.

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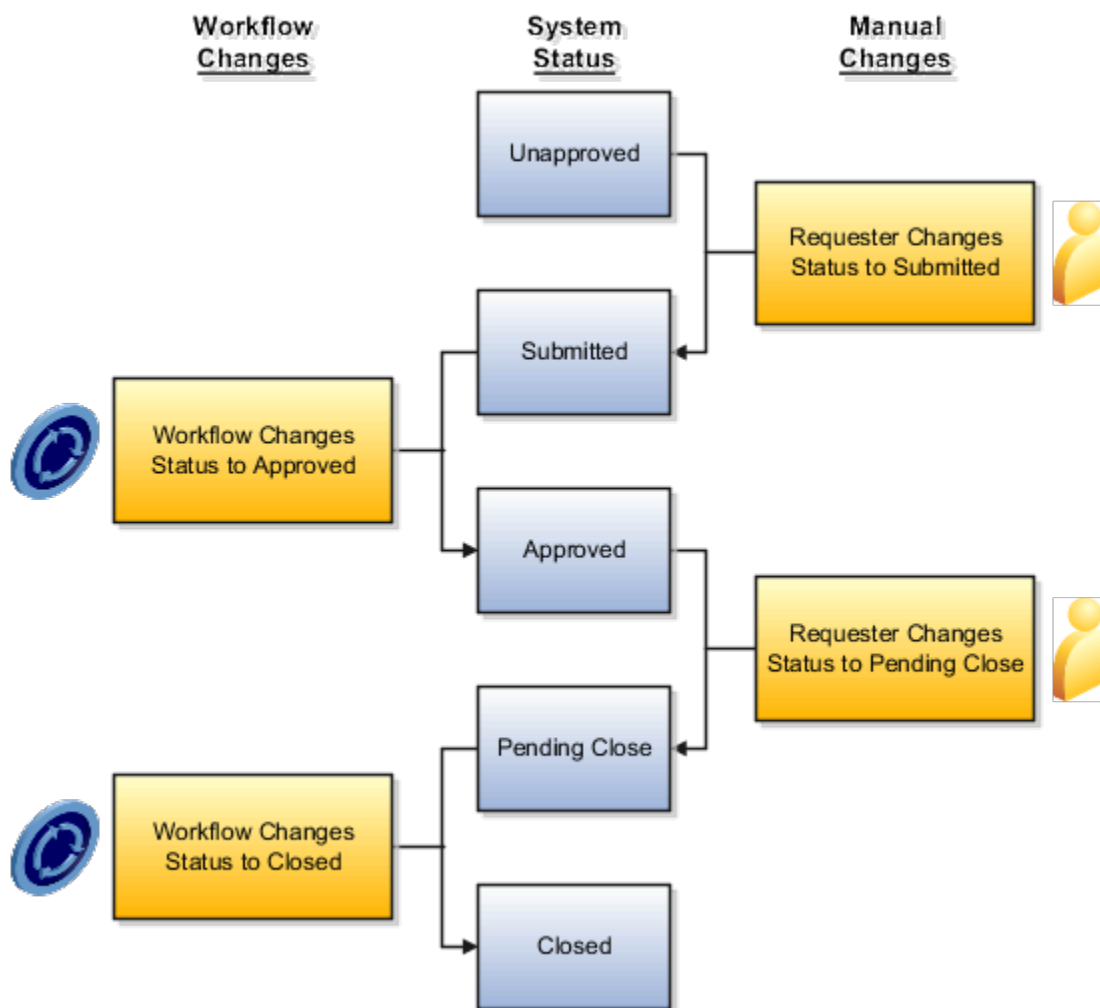
Configuring the Workflow: Supported Attributes

When a Project Status Change Approval workflow is launched, the current values of several project-related attributes are included in the payload. These attributes can be used to configure rules to route approvals for specific business needs.

Project Attributes

Attribute	Description
ProjectId	The unique identifier of the project.
ProjectName	The name of the project.
ProjectNumber	The project number.
CarryingOutOrganizationId	The unique identifier of the project organization.
ProjectOrganizationName	The name of the project organization.
ProjectUnitId	The unique identifier of the project unit.
ProjectUnitName	The name of the project unit.
ProjectTypeId	The unique identifier of the project type.
ProjectTypeName	The name of the project type.
BusinessUnitId	The unique identifier of the business unit.
BusinessUnitName	The name of the business unit.
LegalEntityId	The unique identifier of the legal entity.
LegalEntityName	The name of the legal entity.
WorkTypeId	The unique identifier of the work type.
WorkTypeName	The name of the work type.
ProjectCurrencyCode	The code of the currency used for reporting amounts across projects in a common currency.
ProjectLedgerCurrencyCode	The code of the currency of the ledger associated with the project.
SponsoredFlag	A flag indicating whether the project is sponsored.
ProjectTeamMember-> ProjectPartyId	The unique identifier of a project team member.
ProjectTeamMember-> TeamMemberRoleId	The unique identifier of the role assigned to a project team member.
ProjectTeamMember-> TeamMemberRoleName	The name of the role assigned to a project team member.
ProjectTeamMember-> TeamMemberPersonId	The unique identifier of the person of record for a project team member.
ProjectTeamMember-> TeamMemberEmailAddress	The email address of a project team member.

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Attribute	Description
ProjectTeamMember-> TeamMemberUserName	The user name of a project team member.
ProjectTeamMember-> StartDateActive	The start date of a project team member.
ProjectTeamMember-> EndDateActive	The end date of a project team member.
ProjectTeamMember-> PjsTrackTime	A flag indicating whether missing time is tracked for a team member.
Project Flexfields	Custom project-related flexfields created for use in your organization.
ProjectEpsNodeMember-> EpsNodeId	The unique identifier of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsNodeName	The name of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsNodeTypeCode	The code for the type of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsMemberId	The unique identifier of the Enterprise Project Structure (EPS) member.
ProjectEpsNodeMember-> EpsMemberDisplayName	The name of the Enterprise Project Structure (EPS) member.
ProjectEpsNodeMember-> EpsMemberTypeFlag	A flag indicating the type of the Enterprise Project Structure (EPS) member.
ProjectEpsNodeMember-> EpsMemberUsername	The user associated with the Enterprise Project Structure (EPS) member.
ProjectClassification-> ProjectClassCategory	The project categories assigned to the project.
ProjectClassification-> ProjectClassCode	The project class codes associated with the project class categories assigned to the project
ProjectClassification-> ClassCodePercentage	The project class code percentage.

Project Status-Related Attributes

Attribute	Description
projectStatusCode	The unique code of the project status.
projectStatusName	The name of the project status.
sourceStatusCode	Status codes specific to each source object, as identified by the STATUS_TYPE. Objects which uptake the project status model will either use STATUS_TYPE and SOURCE_STATUS_CODE to resolve a project status, or the globally unique PROJECT_STATUS_CODE.
startDateActive	The effective start date of the project status.
endDateActive	The effective end date of the project status.

Project Status Change Approval Workflow Notifications

The Project Status Change Approval workflow sends notifications when:

- A project status change approval workflow is initiated.

- A project status change approval workflow is **approved** or **rejected**.

The default Project Status Change Approval Workflow notification contains the following details:

- Header

  - Project Status Change Approval Notification
  - Project Name

- Approval options (if sent to an approver)
  - Approve
  - Reject
  - Request Info?

- Contents Section
  - Created on
  - Created by
  - Project number
  - Project Description
  - Previous Project Status
  - Current Project Status
  - Next Project Status if Approved
  - Next Project Status if Rejected
  - Comments from Submitter

- Project Details

  - Project Type
  - Business Unit
  - Organization
  - Project Unit
  - Project Manager
  - Project Start Date
  - Project Finish Date

- Financial Summary

  - Actual Costs
  - Commitments
  - Budget at Completion
  - Revenue

- Approval History: One row per approver.
  - Approvers
    - Assigned to / Approved by / Rejected by <Name of Approver>
    - Date and Time of Assignment / Approval / Rejection
  - Submitter
    - Submitted by <Name of Submitter>
    - Date and Time of Submission
  - Link to transaction details

For guidance on how you can work with workflow notifications in the BPM Worklist tool, see the Workflow Notifications section in the Common Implementing Applications guide.

You can find the templates and data models used in the Project Status Change Approval workflow in the Shared Folders > Projects > Workflow Notifications > Project Foundation folder in the Oracle BI Publisher catalog. In this folder, the **ProjectStatusChangeApprovalReport** file contains the template used in the notification report. Expand the Project Foundation > Data Models folder to access the **ProjectStatusDM** file, which contains the data model used in the notification report.

For information on how you can change notification templates, see the Configurable Notifications section in the Common Implementing Applications guide.

Related Topics
- Use Your Worklist to Manage Workflow Tasks

FAQs for Project Management Configuration

How can I enable a project manager to access a financial project before the project start date?

You might want a project manager to access a financial project in the Project Management work area before the project start date for planning purposes. In such cases, change the start date of the project manager from the Parties tab of the Manage

In such cases, change the start date of the project manager from the **Parties** tab of the **Manage Financial Project Settings** page.

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What's the difference between project calendars and resource calendars?

Project calendars determine standard working and nonworking times for resources working on projects. For example, a project calendar can designate the total number of working hours per day and any holidays that occur during the project dates.

A project calendar is used to schedule project tasks, and to estimate project duration.

Resource calendars determine the total available working hours for resources.

Your implementation team defines the default project and resource calendars that are automatically assigned to new projects and resources. However, a project manager can assign another calendar to a project. Similarly, a project application administrator can assign a different calendar to a resource.

Can I change the default value for the resource calendar that appears when I create a project enterprise labor resource?

Yes. On the Define Project Management Implementation Options page, you select a default resource calendar that the application automatically assigns to new project enterprise labor resources.

If the default resource calendar does not meet the requirements for a specific project enterprise labor resource, then you can assign a different calendar to the resource.

Can I change the full time equivalent hours for resources in my organization?

Yes, the project application administrator can update the quarterly FTE hours on the Define Project Management Implementation Options page.

Why do some tasks have exceptions for progress entries?

A team member entered a proposed start date, proposed finish date, or an increase to the planned hours for the task that exceeds the progress thresholds defined in the project management implementation options.

Related Topics
- Task Exceptions and How to Manage Them

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How can I restrict team member progress reporting for certain project statuses?

Project application administrators can specify the project statuses in which team members can report progress against the project tasks that they are assigned. Navigate to the Manage Project Statuses setup task to specify the project statuses against which team members can report progress.

Once you disable progress reporting for a project status, team members can't view tasks from projects in that status in the Quick Progress region of the Team Member Dashboard or the Manage Tasks page to report progress.

Enterprise Project and Task Codes

Project and Task Codes

Project and task codes are custom attributes that enable project managers and team members to capture additional information.

Here's how project and task codes are used:

- Project managers can manage project codes values from the Edit Project Details page.
- Project managers can manage task code values from the Manage Project Plan page.
- Team members can manage task code values when managing tasks from the Manage Tasks page.

Project application administrators can manage project and task codes from the Manage Enterprise Project Codes page and the Manage Enterprise Task Codes page respectively. After you create project and task codes, they're available in all the project plans.

You can also use them to analyze your projects by including them in the Oracle Transactional Business Intelligence (OTBI) reports.

Manage Project and Task Codes

Here's a table that lists and describes the three data types that can be used to create project and task codes.

Data Type	Details
Value Set	Used to define attributes where users can select from a list of values. Use the Value column to define values for the project or task code. You can create up to 40 project or task codes of the type Value Set. **Note:** The sequence in which values are specified defines the order in which the values appear in the drop-down list.

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Data Type	Details
Numeric	Used to define attributes that capture numeric values. You can create up to 10 project or task codes of the type Numeric.
Free Form Text	Used to define attributes that capture free-form text values. The maximum length for text is 200 characters. You can create up to 20 project or task codes of the type Free For Text.

Note: You can't assign the same code to both project and task codes because they share the same definition.

Related Topics
- Examples of Project and Task Codes

Examples of Project and Task Codes

Project application administrators can manage project and task codes from the Manage Enterprise Project Codes page and the Manage Enterprise Task Codes page respectively.

Examples of Project Codes

Suppose your business needs project managers to capture savings that they must achieve on each negotiation made with a supplier and their actual savings for each project. In such cases, project application administrators can create the required custom attributes using project codes to capture the required values.

Here's a table that lists the custom attributes that must be created using project codes.

Data Type	Project Code	Column Name	Column Description
Numeric	Number 01	Sourcing Savings Goal	The savings goal for your negotiation.
Numeric	Number 02	Sourcing Savings Goal (%)	The savings goal for your negotiation in percentage.
Numeric	Number 03	Negotiated Savings	The actual savings achieved for your negotiation.
Numeric	Number 04	Negotiated Savings (%)	The actual savings achieved for your negotiation in percentage.

After you create these attributes, project managers can enter values for these attributes when creating and managing projects.

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Examples of Task Codes

Suppose project managers want to select a role required to perform each task before assigning resources to tasks. In such cases, project application administrators can create custom attributes using task codes to capture the values.

Here's a table that lists the custom attribute that must be created using task codes.

Data Type	Task Code	Column Name	Column Description
Value Set	List of Values 01	Role	The role of the resource.

And, here's a table that contains the values in the value set.

Sequence	Value
1	Software Developer
2	Project Manager
3	Strategist
4	Quality Analyst
5	Information Developer

After you create the Role value set, project managers can select a role when creating and managing tasks.

Microsoft Project and Project Execution Management Integration

How Microsoft Project Works with Project Management

Use Project Management integration with Microsoft Project to complete initial scheduling and what-if analysis in Microsoft Project before exporting the project plan to Project Management.

The integration of Microsoft Project versions 2016, 2019, or 2021 for desktop with Project Management application lets you schedule project plans, manage resource assignments, and track progress. It also supports components such as manual tasks, inactive tasks, free text, and primary baseline. You can export and synchronize milestones between Microsoft Project and Project Financial Management.

To set up Microsoft Project integration, you must install Microsoft Project Integration Client. After the setup is complete, you can import and export project plans.

Note: Cloud-based versions and other desktop versions of Microsoft Project aren't supported.

Install Microsoft Project Integration Client

A project manager or project administrator can download and install the integration clients available for different versions of Microsoft Project to integrate with Project Management or Project Financial Management applications.

Note: You can only have one integration client, either for Project Management or Project Financial Management applications, on your desktop. To switch between different clients, you must uninstall the existing client and install the other client.

To install Microsoft Project Integration client for Project Management:

1. If you have an existing version of Microsoft Project Integration with Project Management, you must uninstall that client version by selecting Uninstall from the Oracle Fusion Projects ribbon in Microsoft Project.
2. From the Navigator, open Project Management.
3. From the Manage Project Plan page or from the My Projects page, open the Actions panel tab and select Install Microsoft Project Integration to download the client. The minimum system configuration for Microsoft Project and other details appear. Make sure your configuration meets those requirements before proceeding with the install, including the required browser.
4. Save the client, extract the installation files to a local folder, and run setup from that folder.
5. After the Microsoft Project Integration client is installed successfully, open Microsoft Project.
6. From the Oracle Fusion Projects menu, select **Change Environment** and enter the URL for Oracle Fusion Applications.

   You can change the environment URL at any time to support later server changes.

Import Task Codes into Microsoft Project

Use the **Import List of Values** menu option on the Oracle Fusion Projects menu to import values defined for task codes. Ensure that the task codes that you import don't match with any of the Microsoft Project column names. The following table lists the three task codes and the associated Microsoft Project fields.

Task Code	Associated Microsoft Project Fields
TASK_EXT_TEXT01	Text1
TASK_EXT_CODE01	OutlineCode1
TASK_EXT_NUM01	Number1

Use the **View Attribute Mapping** menu option to review how Project Management attributes map to Microsoft Project fields.

Import Projects

Import projects (but not work plan templates) from Project Management work area to create project files in Microsoft Project.

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> **CAUTION:** It's important that the project calendars in Microsoft Project and Project Management are in sync before you export or import projects.

The following table describes how some important task-level attributes are imported or set. The project-level attributes such as status and project customer aren't imported into Microsoft Project.

Attribute	Description
Task attributes	Key imported attributes are: • Task numbers (from the WBS column in Microsoft Project) • Planned dates • Percent complete and physical percent complete • Total planned quantity. If calendar or scheduling settings differ, Microsoft Project recalculates effort or units to retain imported dates. Enterprise task codes are imported but project codes aren't imported. The task type for all imported tasks is set to Fixed Units in Microsoft Project.
Task constraints and dependencies	Project Management application doesn't support the constraint types As Late As Possible and As Soon As Possible. Other constraints are imported using the mapping described in the section on exporting project plan and scheduling information in this topic. If you assign start and finish dates to a task, then a Must Start On constraint is created for the task when you import the project into Microsoft Project.
Milestones	Tasks designated as milestone tasks are imported as milestones in Microsoft Project.
Schedule Type	When importing projects from the Project Management work area into Microsoft Project, the tasks will be created with the schedule type set in the Project Management work area, irrespective of the default task type set in Microsoft Project. So, a fixed duration project is imported as fixed duration tasks and fixed effort project is imported as fixed work tasks. The application always imports the summary tasks as fixed duration because they can't be imported as fixed work.

The following table describes how some important resource and resource assignment attributes are imported or set.

Attribute	Description
Resources	All labor and expense resources defined as project resources are imported.
Resource assignments	The following attributes are imported for resource assignments: • Planned dates • Planned, and remaining effort. The resources (task managers) that you assign to summary tasks are imported into Microsoft Project with zero allocation. • Actual costs for labor resources and actual and planned costs for expense resources. The cost amounts are imported using the project currency. Import processing reports an error if Microsoft Project doesn't support the project currency.

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Note: While importing or exporting projects, if you use a screen reader application, ensure that the focus is on the Transfer Report to read the details of your project transfer.

Export Project Plan and Scheduling Information

Export your project plan to the Project Management work area after initial scheduling is complete in Microsoft Project and after you fix all errors identified during prevalidation.

CAUTION: It's important that the project calendars in Microsoft Project and Project Management are in sync before you export or import projects.

The WBS column values from Microsoft Project are exported as task numbers to the Project Management work area. You can enter alpha numeric characters or use the auto-generated values for WBS in Microsoft Project.

Important attributes exported or recreated at the task level include task number (WBS), task name and dates, task codes, dependencies, constraints, and milestone indicators. A Microsoft Project task should have a contiguous assignment, because the Project Management application doesn't support split tasks. Scheduling in the Project Management application will use the original duration to calculate the dates.

The task date constraints are recreated in Project Management based on the mappings as listed in this table.

Microsoft Project Constraint Type	Project Management Constraint Type
As Late As Possible	No constraint created in Project Management
As Soon As Possible	No constraint created in Project Management
Finish No Earlier Than	Finish On or After
Finish No Later Than	Finish By
Must Finish On	Finish On
Must Start On	Start On
Start No Earlier Than	Start On or After
Start No Later Than	Start By

When exporting projects to the Project Management work area, Microsoft Project exports the tasks based on the conditions specified in this table.

Tasks	Condition
Inactive tasks	Doesn't export.

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Tasks	Condition
Manual tasks	Exports. If the manual task has invalid dates, such as text entries, Microsoft Project exports the dates and duration as blank.
Manual tasks with predecessor dependencies	Exports tasks without predecessor dependencies.
Summary tasks	Manual summary tasks must be converted to automatic summary tasks before exporting them from Microsoft Project into Project Management. If the dates are missing, Project Management automatically populates them.
Summary tasks with dependencies	Summary tasks support dependencies and can be successors or predecessors to any other tasks. Keep in mind that dependencies on summary tasks are applied to its highest-level child tasks that don't have constraints or dependencies.
Baseline	Exports the primary baseline, which is called Baseline, from Microsoft Project into Project Management work area. If the baseline called Baseline isn't available in Microsoft Project, the application exports the data corresponding to the latest saved baseline.
Schedule type	The tasks defaults to the schedule type selected during project export in the Export New Project window. Even if the project contains a mix of fixed duration, fixed units, and fixed work tasks, while exporting, they change into the schedule type selected. Note that the fixed work type in Microsoft Project corresponds to the fixed effort schedule type in the Project Management work area. The resource assignment dates aren't revised based on the task type in the Project Management work area until you explicitly roll up data or schedule tasks.
Milestones	When exporting milestone tasks, ensure that the tasks are lowest-levels tasks with zero duration, that is, the same start and finish dates.

Export Resource Assignments

Important attributes transferred or recreated at the resource assignment level when you export projects include the resource name, planned dates, and total planned work and remaining work. The task type of all exported tasks is set to Fixed Effort in Project Management work area, which corresponds to the Microsoft Project task type of Fixed Work. However, resource assignment dates aren't revised based on task type in Project Management work area until you explicitly roll up data or schedule tasks.

Resources, such as task managers, that you assign to summary tasks must have zero allocation. Otherwise, the prevalidation check reports an error.

> **Note:** The Peak value of a task resource assignment is exported when exporting the resource assignment from Microsoft Project to Project Management work area.

Export Resource Information

When exporting, only resources with task assignments are exported. The following table describes how resources are exported.

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Project Management Resource Type	Microsoft Project Resource Type	Description
Labor	Work	Resources associated with resource assignments are linked to only existing project enterprise labor resources if the email or name exactly matches. Best practice is to include email addresses to differentiate resources with the same name. Export New Project won't create labor resources in Project Enterprise Resources.
Expense	Cost	Resources are linked to existing project enterprise resources if the names match. Export New Project won't create expense resources in Project Enterprise Resources.

Related Topics

- Microsoft Project Prevalidation Messages

Microsoft Project Prevalidation Messages

Use prevalidation messages to identify errors that prevent export of your project plan from Microsoft Project to Project Management. You must fix all errors before exporting a project.

Identify tasks with prevalidation errors using the indicators in the Exception column in the Gantt Chart view of Microsoft Project.

Tip: After export, review the transfer report to identify if errors or warnings occurred for checks other than those performed during prevalidation.

Prevalidation Checks

The following table describes the prevalidation rules for tasks and resource assignments.

Level	Rule
Milestone tasks	No subtasks are allowed under milestone tasks. Milestones must be lowest-level tasks.
Milestone tasks	Milestone tasks must have zero duration.
Tasks	Only existing labor resources in Project Enterprise Resources will be assigned as labor resources. Including the resource's email address is a best practice.
Tasks	Only existing expense resources in Project Enterprise Resources will be assigned as expense resources.

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4 Project Resource Management Configuration

Project Resource Management Set Up

In the Define Project Resource Management Configuration task list, you configure Oracle Project Resource Management to manage the availability and staffing of resources, fulfill project resource requests, and monitor resource utilization.

This activity contains advanced setup tasks that aren't required for a typical implementation of Project Execution Management applications. Here are the tasks and task lists within the Define Project Resource Management Configuration activity.

Here's a table that lists the task that help you set up tasks for creating and managing resources

These tasks help you create and manage resources. You will also find these tasks in the Define Project Enterprise Labor Resources task list.

Task or Task List	Description
Define Attributes for Employees and Contingent Workers in Human Capital Management	Use this Oracle Fusion HCM task list to define attributes that are required for setting up employees and contingent workers in HCM.
Manage Resource Pools	Configure resource pools to which the resources are assigned.
Manage Project Enterprise Labor Resource Maintenance Conditions	Configure conditions and import employees and contingent workers from HCM as project enterprise resources in Project Execution Management.
Manage Target Utilization Percentages	Set up the percentage of hours that the resources are expected to work on project assignments.
Update Resource Utilization Data process	Run the Update Resource Utilization Data process to evaluate the resource utilization.
Submit Process to Maintain Project Resource Search Index process	Maintain Project Resource Search Index process

Here's a table that lists the task that help you set up tasks for a resource request.

Task or Task List	Description
Manage Project Resource Management Value Sets	Review and manage value sets for Oracle Fusion Project Resource Management.
Manage Project Resource Management Descriptive Flexfields	Define validation and display properties of descriptive flexfields, which are used to add attributes to project resource requests.

Task or Task List	Description
Manage Resource Staffing Statuses	Create additional staffing statuses to communicate the evaluation of nominated resource.

Here's a table that lists the general tasks resource management.

Task or Task List	Description
Manage Project Resource Management Implementation Options	Specify options used to control workflow notifications.
Manage Standard Lookups	Create and update the project assignment reservation reasons. **Note:** This task is outside of the Project Resource Management functional area of the Setup and Maintenance work area.
Manage Project Resource Management Messages	Review and manage messages for Oracle Fusion Project Resource Management.
Manage Project Resource Management Attachment Categories	Review and manage attachment categories for Oracle Fusion Project Resource Management.

Related Topics
- How can I edit the list of valid assignment reservation reasons?

Project Resource Management Implementation Options

You can choose and set up the behavior of some common resource management components. Here's what you can do on the Manage Project Resource Management Implementation Options page:

Option	Description
Actual Hours Import	Select the option to import the actual hours into Project Resource Management: • From Costing • From File-Based Data Import Spreadsheet The actual hours are imported when you run the Import Resource Actual Hour process. The imported actual hours are displayed in the Resource Manager Dashboard and in any utilization reports.

Option	Description
Billable Assignment	Select an option for **Available Capacity Score** to determine how the resource's availability is calculated: • Billable Assignments: Only billable assignments are considered to check resource's availability • Billable Assignments and non-project events: Billable assignments and non-project events (such as vacation, training) are considered. • Assignments and non-project events: All assignments and non-project events are considered. If an assignment is set as billable, determine if the resource can be assigned more than 100% of their capacity on billable assignments. Select an option for **Allow Overbooking of Billable Assignments** to: • **Yes** to allow overlapping billable assignments. • **No** to not allow overlapping billable assignments
Resource Rejection reason	Select a default reason for rejecting a nominated resource.
Security	Select the **Secure resources in project resource pools** check box to allow: • Resource managers to manage, search, and schedule only those resources who belong to the pools they're pool managers for. • Project Managers can confirm only those resources on their projects who belong to the pools they're pool managers for.
Workflow	FYI workflow notifications will be sent out to the receivers only if you enable sending the notifications.
Nominated Resource Approvers	Select an option to allow to set the final approver of the nominated resources: • **Resource Manager only**: If you select this option, only resource manager can finally approve the nominated resource for assignment. After the project manager evaluates and finalizes the nominated resource, he needs request assignment approval from the resource manager. • **Resource manager and project manager**: If you select this option, both resource manager and project manager can approve the nominated resource. after the project manager evaluates and finalizes the nominated resource, he can approve the resources himself or send the resource back to the resource manager.
Resource Utilization	Select the Subtract absences and paid time off from total capacity check box to exclude the non-worked time such as vacation from the resource available hours in the projected and actual utilization. If enabled, when a resource manager views utilization of a resource, the application removes the scheduled paid time off hours and absence hours from the capacity hours to display the available hours. For example, during a 4 week period, a resource with an 8 hour per day, 5 day per week calendar, has 160 hours available for project work. During this time, the resource has one week (40 hours) of vacation. When determining utilization for that resource during the 4 week period, the available hours for the resource is lowered to 120 hours.
Content Sections for Resource Search and Evaluate	If the Enhanced Talent Profile is set up in Oracle Cloud HCM Profile Management, you can select the content sections (Competency, Education, Honor, Language, Certification, and Membership) for each content template. You can choose to add all content sections or select specific content sections by clicking **Manage** and selecting the sections you want to add. You can also remove the content sections if required.

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Option	Description
	Note: See the Using Enhanced Talent Profiles guide for more details on managing the talent profiles. You can't remove the content sections that are in draft, open, or in-process requests or have active project roles.
Work Preferences Content Section for Travel Preferences	To track resource travel preferences, such as travel internationally or domestically, when evaluating resources, select the applicable work requirements content section that will be used to capture this information.

Resource Pools

Resource Pools

A resource pool is a logical group of resources organized in a hierarchy for purposes of staffing and managing resources, and reporting on utilization.

Resource managers use resource pools to:

- Search for resources to fulfill project resource requests.

- Review projected utilization on the Resource Manager Dashboard.

Aspects of resource pools explained here include:

- Predefined resource pools

- Resource pool memberships

- Resource pool hierarchies

- Resource pool owners

- Resource pool managers

- Secured resource pools

Predefined Resource Pools

The following pools are predefined:

- **All Resources**

  This pool is always at the top of the resource pool hierarchy.

- **Resources with No Pool Memberships**

  This is the default pool for new resources. This pool is always unsecured, and all resource managers can take action on resources who are in the pool.

- **Inactive Resource Pool Memberships**

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This pool contains resources for the time period that the resources aren't eligible to fulfill project resource requests. For example, a resource who is on a vacation or leave of absence can be a member of this pool. Resources in this pool aren't available for staffing.

You can't move or delete the predefined resource pools.

Resource Pool Memberships

All managed project enterprise labor resources are members of a resource pool. Resources can belong to only one pool on any given date.

The pool membership **From Date** and **To Date** indicate the time period that a resource is a member of a resource pool. Pool membership dates for a resource must be within the **From Date** and **To Date** on the resource definition.

> **CAUTION:** Pool membership dates for a resource must be contiguous and can't overlap.

If a resource becomes ineligible for staffing, then the application:

- Sets the **To Date** of the resource's current pool membership as of the day the resource becomes ineligible for staffing.
- Sets the **From Date** as of the following day for the resource's membership in the **Inactive Resource Pool Memberships** pool.

Resource Pool Hierarchies

Use the Manage Resource Pools page to build a resource pool hierarchy that reflects how the organization manages and reports on resources. For example, resource pools can group resources in a hierarchy by geographic locations, cost centers, skill sets, or primary project roles.

You can revise the resource pool hierarchy, such as moving a child pool from a parent pool in one hierarchy to a parent pool in a different hierarchy.

To delete a resource pool, you must first move all of its resource pool memberships to a different pool. To delete a parent pool, all child resource pools must have no resource pool memberships.

> **CAUTION:** Deleting a parent pool also deletes the child pools.

Resource Pool Owners

You can assign any project enterprise labor resource as a resource pool owner. Typically resource managers own the resource pools.

When a resource manager searches for resources to fulfill a request, by default the application searches for resources who are members of:

- Resource pools that the resource manager owns.
- Resource pools that are children of resource pools that the resource manager owns.

However, if the resource pools are secured, then resource managers can search for qualified resources only in the pools that they have access to.

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Resource Pool Managers

The resource pool owner is a resource pool manager by default. A resource pool can have multiple managers.

Secured Resource Pools

The option to secure resource pool is on the Manage Project Resource Management Implementation Options page of the Setup and Maintenance work area. When security is enabled, resource managers can access only those resources that belong to the resource pools that they manage. If security isn't enabled, resource managers can access any resources across all resource pools.

If your resource pools are secured, then only resource pool managers can perform the following actions.

- Create assignments or events
- Cancel adjustments or assignments
- Confirm assignments
- Change assignments or events
- Delete events
- Propose, reserve, or confirm resources for a project resource request
- Approve adjustments to project resource request
- Search and evaluate resources for project resource requests and assignments

Related Topics
- How can I change the resource pool for resources?

Import Resource Pools and Memberships Process

The Import Resource Pools and Memberships process creates resource pools and resource pool memberships based on data from third-party applications that you load into the resource pools and resource pool memberships interface tables (PJR_RESOURCE_POOLS_INT and PJR_RESOURCE_POOL_MEMBERS_INT).

Once in the interface tables, the resource pool and resource pool membership details are validated and processed by the Import Resource Pools and Memberships process and any exceptions are reported in the output of that process.

Use the Resource Pools Interface macro-enabled Excel workbook template to prepare data for loading and importing, and ensure that your data conforms to the structure and format of the target application database tables. The workbook contains the following worksheets:

- Instructions and CSV Generation: Table-specific instructions, guidelines, formatted spreadsheets, and recommendations for preparing the data file for upload.
- PJR_RES_POOL_CREATE: Worksheet columns that represent table fields for the resource pool names, owners, parent resource pools, and additional remarks.
- PJR_RES_POOL_MEMBERS_CREATE: Worksheet columns that represent table fields for resource pool names, resources to add the resource pools, and the dates that the resources will be members of their assigned pools.

Note: Resource pools that you add members to on the PJR_RES_POOL_MEMBERS_CREATE worksheet must already exist.

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After you prepare the data in the Resource Pools Interface Excel template, click the **Generate CSV File** button in the template to create worksheets to load to the interface tables. Optionally you can bypass the Excel template and manually create CSV files.

Load data into the interface tables and application database tables using one of these two methods:

- Run the Load Interface File and Import Resource Pools and Memberships job set to transfer the data file from your specified location to the interface table and import resource pool data from the interface into the database tables.

- Run the Load Interface File for Import process followed by the Import Resource Pools and Memberships process to separate the load and import steps.

For more information about file-based data import, see the File Based Data Import for Oracle Project Portfolio Management Cloud guide.

Run the load and import processes from the Scheduled Processes Overview page.

Parameters - Load Interface File for Import

Import Process

Select Import Resource Pools and Memberships.

Data File

Select the CSV file that contains resource pool and resource pool membership data to load.

Import Resource Pools and Memberships Execution Report

The Import Resource Pools and Memberships Execution report summarizes the number of processed, accepted, and rejected items encountered when you imported the resource pools and resource pool memberships. The report contains details for all requests that generated errors during the import process.

Review the error message details for each resource pool and fix the issues. Load the data that you fixed in the CSV file into the interface table again and resubmit the Import Resource Pools and Resource Pool Memberships process.

Related Topics
- Overview of External Data Integration Services for Importing Data

FAQs for Resource Pools

Can I delete a resource from a resource pool?

No. Instead, you can set an end date for the resource pool membership. You can also move the resource to another resource pool.

Related Topics
- How can I change the resource pool for resources?

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How can I change the resource pool for resources?

Use any of the following methods to change the resource pool membership for a resource:

- Open the Manage Resource Pool Memberships window from the Manage Project Enterprise Resources page or Manage Resource Pools page. In the Manage Resource Pool Memberships window you can edit, create, and delete memberships for a resource. You can also view the resource's past, current, and future memberships.

- On the Manage Resource Pools page, select the source pool on the resource pool hierarchy. Then select, drag, and drop pool members onto the target pool in the resource pool hierarchy.

- On the Manage Resource Pools page, select pool members and click the **Move Resources** button to open a window to select the target resource pool.

Note: You can't delete a resource from a resource pool.

Project Resource Search Index

The Maintain Project Resource Search Index job set consists of processes that facilitates efficient and rapid searching for qualified resources to fulfill project resource requests.

The process creates indexed resource data for the following resource information:

- Competencies
- Resume text in the latest resume of the resource's profile

Note: The process creates an index of resume text in a File attachment type only. Common resume file types are indexed, such as .doc, .txt, and .pdf.

The application uses the index data for the following:

- When evaluating resources for a project resource request
- To calculate Resource Qualification scores, the application compares the resume text to the keywords entered on the resource request when calculating the Resource Qualification score.
- To display resource details

The application counts indexed text as a keyword if the text starts with the requested keyword. For example, if a requested keyword is `SQL`:

- `SQLPLUS` is a match because it starts with `SQL`
- `PL/SQL` is a match because `PL` and `SQL` are indexed separately
- `MySQL` isn't a match because it doesn't start with `SQL`

Note: If a project resource request contains qualifications or keywords, then resource managers can't search for resources or view resource details if the search index isn't available. The search index isn't available if the Maintain Project Resource Search Index process fails, or when the process is running. The search doesn't return more 99999 resources

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However, if a project resource request doesn't contain qualifications or keywords, then the resource manager can search for and evaluate resources to fulfill the request based on resource availability, even if the search index isn't current or available.

How the Project Resource Search Index Is Maintained

Here's how you can maintain the project resource index:

- You can run or schedule the **Maintain Project Resource Search Index** job set on the Scheduled Processes page.
- If you have already scheduled **Maintain Project Enterprise Labor Resources** job, then the Maintain Project Resource Search Index job set starts automatically as part of this job.

Run the Maintain Project Resource Search Index job set often enough to account for the following changes:

- Changes in resumes, qualifications, and proficiency for a managed project enterprise labor resource.
- New or terminated resources.

For example, assume that you require resources to update their qualifications when they complete a project, and the average project duration is two weeks. You can schedule the Maintain Project Resource Search Index job set to run once every two weeks to update the index with the latest resource qualification changes.

Related Topics
- How Resource Qualification Score Is Calculated

Target Utilization Percentages

How the Resource Target Utilization Percentage is Determined

You can set up target utilization percentage from the Manage Target Utilization Percentage setup page. It is the percentage of hours that project enterprise labor resources are expected to work on project assignments compared to their available hours.

Once set, it shows in the Resource Manager Dashboard, against which actual and projected utilization can be compared.

How to Set Up Resource Target Utilization Percentage
You can setup the target utilization at two levels

Level	UI Component	Description
Enterprise	Enterprise Target Utilization Percentage	Applies to all managed project enterprise labor resources unless specific override percentages exist for a resource's job.
Resource Job	Target Utilization Percentage Overrides	Sets the percentage for resources with specific jobs and overrides the enterprise target utilization percentage for this role . The

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Level	UI Component	Description
		resources must be assigned this job in Oracle HCM

Target Utilization Percentage Calculation

The Update Resource Utilization Data process calculates target utilization for all resources assigned to resource pools.

Example

Assume that the target utilization for the enterprise is 80%. To set up the target utilization, change the default enterprise target utilization percentage from 100% to 80% on the Manage Target Utilization Percentages setup page.

Also assume that Senior Architects spend half their time on internal activities. To set up the target utilization for Senior Architects, enter 50% as the target utilization override for the job of Senior Architect.

The application uses 80% as the target utilization percentage for all resources but overrides for the job of Senior Architect and instead use 50% to calculate the percentage.

Related Topics
- How Resource Target Hours Are Calculated
- How Resource Projected Utilization Is Calculated

FAQs for Target Utilization Percentages

Can I set the target utilization percentage for individual resources?

No. The target utilization comes from either the enterprise target utilization percentage or a target utilization percentage override for resources with specific jobs.

You enter the enterprise target utilization percentage and the target utilization percentage overrides on the Manage Target Utilization Percentages page in the Setup and Maintenance work area.

The override percentage applies to resources with a job title in Oracle Fusion HCM, namely resources who are employees or contingent workers.

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Project Resource Descriptive Flexfields

Considerations for Configuring Project Resource Request Descriptive Flexfields

Descriptive flexfields for project resource requests allow you to capture unique attributes for your project resource requests. The descriptive flexfields are displayed in the Additional Information section of the Create and Edit Project Resource Request pages.

Configure the project resource request descriptive flexfields using the Manage Project Resource Management Descriptive Flexfields page in the Setup and Maintenance work area:

- Offering: Project Execution Management
- Functional Area: Project Resource Management

Configuring the Text Only Segments

If you select the Character data type for a table column, then any text component flexfield segments that use `ATTRIBUTE_CHAR1` through `ATTRIBUTE_CHAR30` have a 150 character limit. The text component flexfield segments that you create from `ATTRIBUTE_CHAR31` through `ATTRIBUTE_CHAR35` have a 1000 character limit.

Related Topics
- Overview of Descriptive Flexfields
- Overview of Flexfields

FAQs for Project Resource Management Descriptive Flexfields

How can I update descriptive flexfields for project resource requests with a web service?

Use the Project Resource Request service to create a project resource request and then update the descriptive flexfields. Create a project resource request with the createResourceRequest operation. Then use the updateResourceRequestDescriptiveFlexfields operation to update the Project Resource Request Descriptive Flexfields service data object.

Related Topics

Can I change the default resource rejection reasons?

Yes. Go to the Manage Standard Lookups task in the Setup and Maintenance work area. Then find the ORA_PJR_RESOURCE_REJECTION_REASON lookup type, and add or edit the lookup codes as required.

You can also set up a default rejection reason in Manage Project Resource Management Implementation Options.

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Absence Management Integration

Time and labor administrators and project application administrators can integrate Absence Management and Project Portfolio Management to use Absence Management as the single source of absence entry.

Here's how absence entries are used in Project Portfolio Management.

- Project Resource Management uses absence entries to calculate available capacity. For example, when team members enter their summer vacation dates, available capacity calculations consider those dates as unavailable.

- Resource managers can view absence entries in resources' schedule when evaluating resource availability.

- Project managers can view absence entries in:

    o Resources' schedule

    o Project calendar

  Note: Project managers can view absence entries in project calendar only if a resource is added as a project resource.

- Team members can view absence entries in their calendars on the Team Member Dashboard along with other event information.

Import Absence Management Data

To import data from Absence Management, time and labor administrators must perform steps in Absence Management and project application administrators must perform steps in Oracle Project Management.

Here's a flowchart that provides a summary of steps that must be performed in both the applications.

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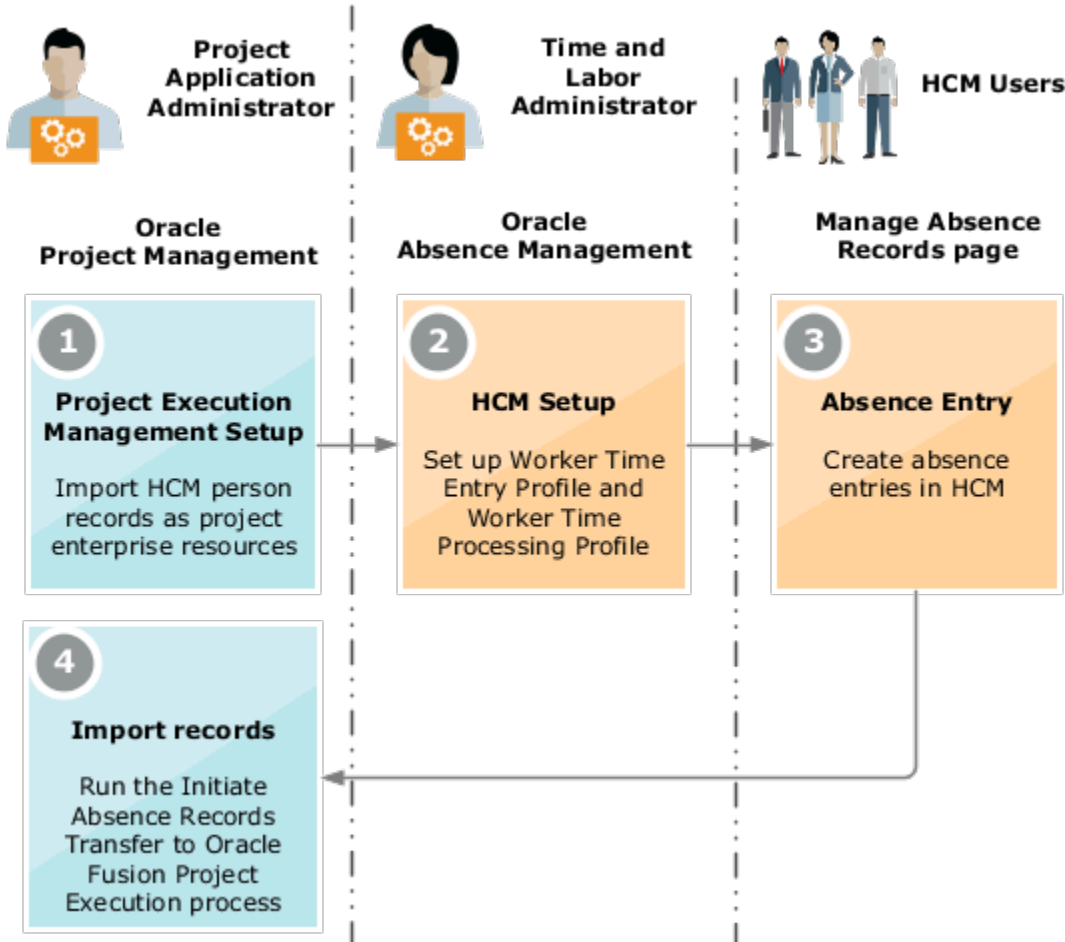
To import data from Absence Management:

1. Project application administrators must ensure that HCM employee and contingent workers, whose absence records must be imported to Project Execution Management, are imported as project enterprise resources. You can import these in one of the following ways:

   o Run the Manage Project Enterprise Labor process.

   o Import the records manually using the Manage Project Enterprise Resources page.

2. Time and labor administrators must set up Worker Time Entry Profile and Worker Time Processing Profile in Absence Management. You must set up these profiles for all users whose data must be imported to Project Execution Management. You can set these from the Workforce Deployment offering.

   o Set up Worker Time Entry Profile if you're importing both time cards into Project Costing and absence entries into Project Execution Management. To set up the profile, you must perform the following steps in the specified sequence:

Sequence	Task	Steps
1	Manage Time Entry Layout Components	Create Project, Task, and Time Type fields as non-mandatory fields.

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Sequence	Task	Steps
		These will be used in the Manage Time Cards page.
2	Manage Time Layout Sets	i. Duplicate the Projects and Payroll layout set to create a new layout set. ii. Edit the layout to remove the existing mandatory Project, Task and Time Type fields and add the fields created in the previous task.
3	Manage Worker Time Entry Profiles	i. Duplicate Projects and Payroll Time Entry Profile to create a new profile. ii. Link the new profile to the layout set created in the previous task. iii. Set the new profile to the highest priority.

- o Set up the Worker Time Processing Profile in the Manage Worker Time Processing Profiles task.

    - If you're importing only absence entries, set the Project Execution Management Time Processing Profile predefined profile to the highest priority.
    - If you're importing both time cards and absence entries, set the Projects and Payroll Time Processing Profile predefined profile to the highest priority.

3. Permanent and contingent employees must create absence entries using the Manage Absence Records page. Only absence entries in hours are imported into Project Portfolio Management. So, it's critical that you enter the time in hours in Absence Management.

4. Project application administrators must run the Initiate Absence Records Transfer to Oracle Fusion Project Execution process to import absence entries from HCM to Project Execution Management. Keep in mind that:

    - o You can't edit absence entries from Project Execution Management.

    - o The process imports all submitted absence entries and doesn't wait for approval of the absence entries. Absence entries which aren't approved will be withdrawn when the process is executed the next time.

Related Topics
- Create a Nonunified Payroll Layout Set That Includes Absence and Override Fields
- Considerations for Creating Time Consumer Sets
- Create an HCM Group Using Evaluation Criteria

5 Common Reference Objects for Extensions

Applications Core Standard Lookups

Overview of Lookups

Lookups are lists of values in applications. You define a list of values as a lookup type comprising a set of lookup codes, each code's translated meaning, and optionally a tag.

On the UI, users see the list of translated meanings as the values available for selection. Lookups provide a means of validation and lists of values where valid values appear on a list with no duplicate values. For example, an application might store the values Y and N in a column in a table, but when displaying those values in the user interface, Yes or No (or their translated equivalents) should be available for users to select. For example, the two lookup codes Y and N are defined in the REQUIRED_INDICATOR lookup type.

> **Note:** Don't include spaces in lookup codes. Use the underscore character (_) to separate the words if needed. For example, instead of creating the lookup code as DEV PROGRAM, create it as DEV_PROGRAM.

The following table contains an example of a lookup type for marital status (MAR_STATUS) that has lookup codes for users to specify married, single, or available legal partnerships.

Lookup Code	Meaning	Tag
M	Married	Not applicable
S	Single	Not applicable
R	Registered Partner	+NL
DP	Domestic Partner	-FR, AU

In this case, tags are used for localizing the codes. All legislations list Married and Single. Only the Dutch legislation lists Registered Partner. And all legislations except France and Australia also list Domestic Partner.

When managing lookups, you need to understand the following.

- Using lookups in applications
- Configuration levels
- Accessing lookups
- Enabling lookups
- The three kinds of lookups: standard, common, and set-enabled

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Using Lookups in Applications

Use lookups to provide validation or a list of values for a user input field in a user interface.

An example of a lookup used for validation is a flexfield segment using a table-validated value set with values from a lookup type. An example of a lookup in a list of values is a profile option's available values from which users select one to set the profile option. Invoice Approval Status gives the option of including payables invoices of different approval statuses in a report. The lookup code values include All, so that users can report by all statuses: Approved, Resubmitted for approval, Pending or rejected, and Rejected.

Configuration Level

The configuration level of a lookup type determines whether the lookups in that lookup type can be edited. This applies data security to lookups.

Some lookup types are locked so no new codes and other changes can be added during implementation or later, as needed. Depending on the configuration level of a lookup type, you may be able to change the codes or their meanings. Some lookups are designated as extensible, so new lookup codes can be created during implementation, but the predefined lookup codes can't be modified. Some predefined lookup codes can be changed during implementation or later, as needed.

The configuration levels are user, extensible, and system. The following table shows the lookup management tasks permitted at each configuration level.

Permitted Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No
Updating start date, end date, and enabling the lookup code	Yes	Yes, only if the code isn't predefined data	No
Deleting codes	Yes	Yes, only if the code isn't predefined data	No
Updating tags	Yes	No	No
Updating module	Yes	No	No

Predefined data means LAST_UPDATED_BY = SEED_DATA_FROM_APPLICATION.

If a product depends on a lookup, the configuration level must be system or extensible to prevent deletion.

Once the configuration level is set for a lookup type, it can't be modified. The configuration level for newly created lookup types is by default set at the User level.

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Access to the REST Resources

Users can retrieve information about lookups using the following REST resources:

- standardLookupsLOV
- commonLookupsLOV
- setEnabledLookupsLOV
- genericLookupsLOV

However, you can control whether a lookup is a part of the LOV or not. On the UI, for each lookup you can specify the **REST Access Secured** value that in turn determines whether it's included in the response or not. These values are:

- Anonymous: Lookup is available to a user having anonymous role or authenticated role.
- Authenticated: Lookup is available to a user having only the authenticated role.
- Secure: Lookups aren't available to users as part of generic REST Resources (Standard, Common, or Set-Enabled). To make it available, your security administrator must assign a specific function security policy for each lookup type to a role and assign that role to the selected users.

    Note: The function security policy is provided only for predefined lookup types.

For all lookups, the default value is set to **Secure**. So, if you want to make the lookup available to users through any of those resources, you must change the value to Authenticated or Anonymous, depending on who needs to access that information.

Standard, Common, and Set-Enabled Lookups

The following table shows the available types of lookups.

Lookup Type	Description
Standard	Lists the available codes and translated meanings.
Set-enabled	Associates a reference data set with the lookup codes.
Common	Legacy lookups or lookups that have attributes.

Standard lookups are the simplest form of lookup types consisting only of codes and their translated meaning. They differ from common lookups only in being defined in the standard lookup view. Common lookups exist for reasons of backward compatibility and differ from standard lookups only in being defined in the common lookup view. These can also be lookups having attribute columns. Set-enabled lookup types store lookup codes that are enabled for reference data sharing. At runtime, a set-enabled lookup code is visible because the value of the determinant identifies a reference data set in which the lookup code is present.

Accessing Lookups

Standard, set-enabled, and common lookups are defined in the Standard, Set-enabled, and Common views, respectively. Applications development might define lookups in an application view to restrict the UI pages where they might appear.

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In lookups management tasks, lookups might be associated with a module in the application taxonomy to provide criteria for narrowing a search or limiting the number of lookups accessed by a product specific task such as Manage Purchasing Lookups.

Enabling Lookups

A lookup type is reusable for attributes stored in multiple tables.

Enable lookups based on the following.

- Selecting an **Enabled** check box
- Specifying an enabled start date, end date, or both
- Specifying a reference data set determinant

If you make changes to a lookup, users must sign out and back in before the changes take effect. When defining a list of values for display rather than validation, limit the number of enabled lookup codes to a usable length.

To view the predefined lookups and their lookup codes, use the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set-Enabled Lookups

Translating Lookups

You can translate the lookups that you defined to the preferred language(s) without changing the language session of the application. Use the translation option available on the lookup code table. By default, for each lookup, all the permitted language rows in the translator dialog box appear in the source language (the current session language). When you edit a particular language entry, you can modify the translated meaning and description to the language in which you want the lookup to appear. Once the updates are made, the end-users can view the lookup in the translated text.

Note: You can add the translation for only as many languages as are permitted by the administrator. The functionality to limit the number of languages displayed on the dialog box is controlled through the Translation Editor Languages profile option. It can be set at the SITE or USER level. If nothing is specified, all active languages are displayed.

Deleting Lookup Types and Lookup Codes

You can delete lookup types and lookup codes from the lookups management tasks in the Setup and Maintenance work area. For example, you can delete lookups that are part of the Purchasing module, from the Manage Purchasing Lookups task in the Setup and Maintenance work area. Select the required lookup type to see the lookup codes associated with it. To delete a lookup code, select the required code and click the **Delete** icon. To delete a lookup type, similarly, select the required lookup type and click the **Delete** icon.

You can also use REST resources to delete lookup types and lookup codes.

- For more information about deleting a lookup type using REST resources, see the Delete a standard lookup section in the *REST API for Common Features in Oracle Fusion Cloud Applications* guide.
- For more information about deleting a lookup type, see the Delete a lookup code section in the *REST API for Common Features in Oracle Fusion Cloud Applications* guide.

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Here are a few things to know about deleting lookup types and codes:

- Certain lookup types and codes can't be deleted, for example, predefined lookup types and codes can't be deleted.

- You can't delete lookup codes in bulk. Instead, you can delete an entire lookup type.

Related Topics
- How can I access predefined lookups?
- Example of a Set-Enabled Lookup
- What's the difference between a lookup type and a value set?
- Example of a Standard Lookup
- How can I enter or edit translated text?
- Create Roles in the Security Console

Example of a Standard Lookup

Creating a new standard lookup involves creating or selecting a lookup type containing the lookup code. The task also involves determining appropriate values for the lookup codes and their meanings.

You can create or edit lookup codes only if the configuration level for that lookup type supports it.

Creating a Lookup Type Called COLORS

Your enterprise needs a list of values to be used as different statuses on a process. Each status is indicated using a color. Therefore, you create a lookup type called COLORS. The following table lists a mapping between the lookup type parameters and the actual values assigned to those parameters to create the required list of values.

Lookup type parameters	Value
Lookup type name	COLORS
Meaning	Status
Description	Status by color
Module	Oracle Fusion Middleware Extensions for Oracle Application

After you define the lookup type, you need to define the lookup codes and their related details. The following table lists the lookup codes you define for the COLORS lookup type.

Lookup Code	Meaning	Enabled	Display Sequence
BLUE	Urgent	No	4

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Lookup Code	Meaning	Enabled	Display Sequence
RED	Stop	Yes	1
GREEN	Proceed	Yes	3
YELLOW	Check	Yes	2

The Resulting Data Entry List of Values

Only the enabled lookup codes appear in the list of values for the COLORS lookup type. You must select one of them to complete the activity.

The following table lists the meanings and the codes that were enabled. They appear in the order of the defined display sequence.

Meaning	Lookup Code
Stop	RED
Check	YELLOW
Proceed	GREEN

The BLUE lookup code wasn't enabled and doesn't appear in the list of values. The display sequence of values in the list of values is alphabetic, unless you enter a number manually to determine the order of appearance. Number 1 indicates the first value that appears in the list. Only lookups that are enabled and active between start and end dates are visible.

The Transaction Table

When users enter one of the values from the list of values for the lookup type COLORS, the transaction table records the lookup code. The following table contains an example, where the lookup code is stored in the Status column of the transaction table.

Transaction number	User name	Status
1	Jane	RED
2	Bob	YELLOW
3	Alice	BLUE

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The status for one user is BLUE because at the time they entered a value, BLUE was enabled. Disabling a lookup code doesn't affect transaction records in which that code is stored. Data querying and reporting have access to disabled lookup codes in transaction tables.

Related Topics
- What's a lookup tag used for?
- What's the difference between a lookup type and a value set?
- Why can't I see my lookup types?
- How can I edit lookups?

Example of a Set-Enabled Lookup

Creating a new set-enabled lookup is similar to creating a standard lookup with the addition of specifying a reference data set determinant for the lookup codes.

The reference data set for a set-enabled lookup code is part of its foreign key. This is unlike other set-enabled entities. Use the Manage Set Assignments task to define and manage reference data set assignments. Note that you can create or edit lookup codes only if the configuration level for that lookup type supports it.

Selecting a Reference Group for a Set-Enabled Lookup Type

Specify a reference group for a set-enabled lookup type to indicate which reference data set assignments are available for its lookup codes. For example a COLORS lookup type might be set-enabled for a Countries reference group that includes the US and EU reference data set assignments.

Selecting a Reference Data Set for a Set-Enabled Lookup

The reference data set determines which lookup code is included in the list of values. For example, there are two references data sets - one for the US and the other for EU. If a COLORS lookup type contains RED, YELLOW, ORANGE, and GREEN lookup codes, you can enable one RED lookup code from the US reference data set and another RED lookup from the EU reference data, each lookup code having different meanings.

The following table elaborates the example, how these two reference data sets (US and EU) contain one lookup code that's common, but each differing in its lookup meaning.

Reference Data Set	Lookup Code	Lookup Meaning
US	RED	Red
US	YELLOW	Yellow
US	GREEN	Green
EU	RED	Rouge
EU	ORANGE	Orange

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Some lookup codes may be unique to one or another reference data set as the ORANGE lookup is to the EU reference data set in the example.

In another example in the following table, a lookup type called HOLD_REASON provides a list of reasons for putting a contract renewal on hold. Reference data sets determine which codes are included in the Hold Reason list of values.

Reference Data Set	Lookup Code	Lookup Meaning
US	SEC	SEC Compliance Review
US	DIR	Needs Director's Approval
US	VP	Needs Vice President's Approval
CHINA	CSRC	Pending China Securities Regulatory Commission Review
CHINA	PR	Needs President's Approval
COMMON	REQUESTED	Customer Request

Referring to the example in the table, when end-users place a contract on hold in the US business unit, the three reason codes in the US set are available. When placing a contract on hold in the China business unit, the two codes in the China set are available.

Related Topics
- Example of a Standard Lookup

FAQs for Applications Core Standard Lookups

How can I access predefined lookups?

Search for predefined lookups using any of the manage lookups tasks.

1. In the Setup and Maintenance work area, go to any of the following tasks that contains the lookups you're looking for:
   - Manage Standard Lookups
   - Manage Common Lookups
   - Manage Set-enabled Lookups
2. Enter any of the search parameters and click **Search**. If you don't know the lookup type or the meaning, use the **Module** field to filter search results.
3. Click a lookup type to view its lookup codes.

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> **Tip:** Click the Query By Example icon to filter the lookup codes.

Related Topics
- Use Query By Example
- How do I update existing setup data?

How can I edit lookups?

On any of the Manage Lookups pages, you can edit the existing lookup codes of a lookup type or add new lookup codes. You can edit lookups using the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set Enabled Lookups

Each task contains a predefined set of lookup types that are classified and stored. Open a task to search and edit the required lookup. However, you may not be able to edit a lookup if its configuration level doesn't support editing.

Why can't I see my lookup types?

Lookup types are classified using tasks that involve a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types.

However, the generic tasks provide access to all lookups types of a kind, such as common lookups associated with the Manage Common Lookups task. If the lookup types in an application are available in the standard, common, or set-enabled lookups view, they're central to an application. However, lookup types defined for a specific application are managed using the task for that application.

What's the difference between a lookup type and a value set?

A lookup type consists of lookups that are static values in a list of values. Lookup code validation is a one to one match.

A table-validated value set may consist of values that are validated through a SQL statement, which allows the list of values to be dynamic. The following table brings out the differences between a lookup type and a value set.

> **Tip:** You can define a table-validated value set on any table, including the lookups table. Thus, you can change a lookup type into a table-validated value set that can be used in flexfields.

Area of Difference	Lookup Type	Value Set
List of values	Static	Dynamic if the list is table-validated

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Area of Difference	Lookup Type	Value Set
Validation of values	One to one match of meaning to code included in a lookup view, or through the determinant of a reference data set	Validation by format or inclusion in a table
Format type of values	char	varchar2, number, and so on
Length of value	Text string up to 30 characters	Any type of variable length from 1 to 4000
Duplication of values	Never. Values are unique.	Duplicate values allowed
Management	Both administrators and end-users manage these, except system lookups or predefined lookups at the system configuration level, which can't be modified.	Usually administrators maintain these, except some product flexfield codes, such as GL for Oracle Fusion General Ledger that the end-users maintain.

Both lookup types and value sets are used to create lists of values from which users select values.

A lookup type can't use a value from a value set. However, value sets can use standard, common, or set-enabled lookups.

What's a lookup tag used for?

A tag is an additional label attached to the lookup. Tags are user-defined and can be grouped depending on the user's requirement to make search convenient and effective.

The same tag may be used across lookup categories. In such cases, tags are used as a refined search criterion to filter information across several groups and get the search results.

> **Note:** Lookup tags are optional descriptions of attribute values. These descriptions aren't validated. In some product-specific implementations, tags are used for specific purposes. For more information, see product-specific documentation.

Related Topics
- Overview of Lookups
- Considerations for Deleting Tags from Lookup Codes

How can I search for a specific lookup code?

Use the Query By Example functionality to sort through hundreds of lookup codes for a lookup type, and display a specific lookup code.

Enter the first few characters of the lookup code value in any of the relevant fields to filter the records.

Note: The search functionality is case sensitive.

Related Topics

- How do I update existing setup data?
- Use Query By Example

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6 Public Business Events

Overview of Public Business Events

A public event, also known as business event, is a definable logical occurrence in a business scenario. It can be a high-level occurrence such as project creation or a specialized event such as status change.

If you want to perform operations in other systems based on public events in Oracle Fusion Cloud Project Management, then you can use public event features. Project Application Administrators must enable public event features using the ERP Business Events REST Endpoints if they aren't enabled by default.

After you enable these features, Oracle PPM Cloud sends a signal, along with a payload containing information about the public event, whenever an event occurs. The public event signal is also known as public event.

Note: Oracle PPM Cloud sends signals irrespective of the source or cause of the event. For example, the application sends a project creation signal when a project is created using file-based data import, REST service, SOAP service, or user interface.

Integration developers and administrators can subscribe to public events from the Oracle Integration Cloud using the Oracle ERP Cloud Adapter. Then, they can use the information in the payload to configure event handlers that perform business operations. For more information, refer to Oracle ERP Cloud Adapter Capabilities and Developing Integrations with Oracle Integration Cloud Service.

Public event payload contains specific information pertaining to the event. You can use callback services to retrieve additional information from Oracle PPM Cloud.

Public Events for Project Execution Management

This table describes the public events supported by Project Execution Management.

Cloud Product	Supported Public Event	Description	Enabled by Default	First Release Available	Callback Service
Project Management	Project Status Changes	Signals whenever a project is created or a project status is changed.	No	17D	REST Service: Projects Operation: Get a Project
Project Management	Project Deliverable Status Changes	Signals whenever a project deliverable status or priority changes. Creating or deleting deliverables doesn't generate signals.	No	19A	REST Service: Deliverables Method: Get a deliverable

Cloud Product	Supported Public Event	Description	Enabled by Default	First Release Available	Callback Service
Task Management	Project Task Progress Status Changes	Signals whenever a project task progress status changes. Creating or deleting tasks doesn't generate signals.	No	19A	REST Service: Project Plans Resource: Tasks Operation: Get a task of a project
Task Management	Project Milestone Completion	Signals whenever a project milestone is completed. Completing financial tasks that are flagged as milestones doesn't generate signals.	No	19A	REST Service: Project Plans Resource: Tasks Operation: Get a task of a project
Project Resource Management	Project Resource Request Status	Signals whenever the status of a project resource request changes, a new request is created in Open or Pending Adjustment status, or resource assignments are readjusted or canceled.	No	19B	REST Service: Project Resource Requests Operation: Get a project resource request
Project Management	Project Gate Approver Status Change	Signals whenever the approval status for a gate is changed by an approver.	No	21C	REST Service: Project Plans Resource: Tasks Operation: Get a task of a project
Project Management	Project Gate Status Change	Signals whenever the status of a project gate is changed.	No	21C	REST Service: Project Plans Resource: Gate Approvers Operation: Update
Project Management	Project Change Order Changes	Signals whenever a project change order status or stage or priority changes. Creating or deleting change orders doesn't generate signals.	No	23D	REST Service: Change Orders Resource: Change Order Operation: Update
Project Management	Project Issue Status Changes	Signals whenever a project issue status or priority changes. Creating or deleting	No	23D	REST Service: Project Issues Resource: Project Issue

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Cloud Product	Supported Public Event	Description	Enabled by Default	First Release Available	Callback Service
		issues doesn't generate signals.			Operation: Update
Project Management	Project Work Plan Baseline Creation	Signals whenever a project work plan baseline is created. Setting an existing baseline as the primary baseline doesn't generate signals.	No	23D	REST Service: Project Plans

Resource: Baselines

Operation: Create |

Public Events for Project Deliverable Status Changes

If you want Oracle Project Portfolio Management Cloud to signal whenever a project deliverable's status or priority changes, then you must use the ERP Business Events REST Endpoints to enable the feature. Keep in mind that creating or deleting a deliverable doesn't generate signals.

For example, if you want to send an email notification whenever the status of a deliverable changes to completed, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project deliverable's status or priority changes.
2. Integration developers must create event handlers that subscribe to these signals and send an email notification whenever the status of a deliverable changes to completed.

Attributes in the Payload for Project Deliverable Status Change Event
This table lists and describes the attributes in the payload.

Attribute	Description
DeliverableId	Identifier of the deliverable.
ShortName	Short name of the deliverable.
OwnerName	Name of the person who owns the deliverable.
CreatedBy	Name of the person who created the deliverable.
CreationDate	Date when the deliverable was created. The format is MM-DD-YYYY.
NeedByDate	Due date of the deliverable. The format is MM-DD-YYYY.
PriorityCode	Internal code of the priority assigned to the deliverable.

Attribute	Description
StatusCode	Internal code of the status for the deliverable.
AssociationsCount	Total number of associations of the deliverable with project tasks and backlog items.
LastUpdatedBy	Name of the person who last updated the attachment.
LastUpdateDate	Date when the attachment was last updated.

Sample Payload for Project Deliverable Status Changes Event

Let's look at a sample payload that's generated when the status of a deliverable, Deliverable 1, changes from NEW to WORKING.

```
<content>
 <ProjectDeliverableStatusChangedInfo xmlns="http://vision/apps/projects/projectManagementControl/
deliverables/publicModel/entity/events/schema/DeliverableEO">
 <DeliverableId>
 <oldValue value="300100023181201"/>
 <newValue value="300100023181201"/>
 </DeliverableId>
 <ShortName>
 <oldValue value="Deliverable 1"/>
 <newValue value="Deliverable 1"/>
 </ShortName>
 <OwnerName>
 <oldValue value="Connor.Horton"/>
 <newValue value="Connor.Horton"/>
 </OwnerName>
 <CreatedBy>
 <oldValue value="Connor.Horton"/>
 <newValue value="Connor.Horton"/>
 </CreatedBy>
 <CreationDate>
 <oldValue value="01-12-2018"/>
 <newValue value="01-12-2018"/>
 </CreationDate>
 <NeedByDate>
 <oldValue value="02-12-2018"/>
 <newValue value="02-12-2018"/>
 </NeedByDate>
 <PriorityCode>
 <oldValue value="MEDIUM"/>
 <newValue value="MEDIUM"/>
 </PriorityCode>
 <StatusCode>
 <oldValue value="NEW"/>
 <newValue value="WORKING"/>
 </StatusCode>
 <AssociationsCount>
 <oldValue value="1"/>
 <newValue value="1"/>
 </AssociationsCount>
 <LastUpdatedBy>
 <oldValue value="Connor.Horton"/>
 <newValue value="Connor.Horton"/>
```

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```
        </LastUpdatedBy>
        <LastUpdateDate>
        <oldValue value="01-12-2018"/>
        <newValue value="01-12-2018"/>
        </LastUpdateDate>
        </ProjectDeliverableStatusChangedInfo>
    <\content>
```

Public Events for Project Task Progress Status Changes

If you want Oracle PPM Cloud to signal whenever project task progress status changes, then you must use the ERP Business REST Endpoints to enable the feature. Keep in mind that creating or deleting tasks doesn't generate signals.

For example, if you want to initiate an activity in another application whenever task status changes to In Progress, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when project task progress status changes.
2. Integration developers must create event handlers that subscribe to these signals and initiate an activity whenever the project task progress status changes to In Progress.

Attributes in the Payload for Project Task Progress Status Changes Event

This table lists and describes the attributes in the payload.

Attribute	Description
ProjElementId	Unique identifier of the task. This value is the same as Task ID.
ProjectId	Unique identifier of the project.
ElementType	Indicates if the task is financially tracked or tracked for execution only. Valid values are EXECUTION and FINANCIAL.
ProgressStatusCode	The code for the status of work completed on the task. Valid values are NOT_STARTED, IN_PROGRESS, and COMPLETED.
OldProgressStatusCode	The previous code for the status of work completed on the task. Valid values are NOT_STARTED, IN_PROGRESS, and COMPLETE.
BillableFlag	Indicates that transactions charged to the task can be billed to customers. Valid values are Y, N, and null. The value is Y when the transactions are billable. The value is N or null when the transactions aren't billable.
ChargeableFlag	Indicates that something is eligible to be charged to a task. Valid values are Y, N, and null. The value is Y when the transactions are chargeable. The value is N when the transactions aren't chargeable.
ActualStartDate	The date that work commenced on a task as opposed to the planned start date for the task.
ActualFinishDate	The actual finish date for the task as opposed to a planned finish date for the task.

Attribute	Description
StartDate	The date that work or information tracking begins on a project. The format is DD-MM-YYYY.
FinishDate	The date that work or information tracking completes for a project. The format is DD-MM-YYYY.
PercentComplete	Indicates the percentage of work completed for the task.
LastUpdatedBy	Name of the person who last updated the task.

Sample Payload for Project Task Progress Status Changes Event

Let's look at a sample payload that's generated when the status of a Project Task changes from Not Started to In Progress.

```
<content>
 <ProjectTaskProgressStatusChangedInfo xmlns="http://vision/apps/projects/projectManagement/common/
publicModel/entity/events/schema/ProjPlanLineEO">
 <ProjElementId>
 <oldValue value="300100111675917"/>
 <newValue value="300100111675917"/>
 </ProjElementId>
 <ProjectId>
 <oldValue value="300100082280694"/>
 <newValue value="300100082280694"/>
 </ProjectId>
 <ElementType>
 <oldValue value="EXECUTION"/>
 <newValue value="EXECUTION"/>
 </ElementType>
 <ProgressStatusCode>
 <oldValue value="NOT_STARTED"/>
 <newValue value="IN_PROGRESS"/>
 </ProgressStatusCode>
 <OldProgressStatusCode>
 <oldValue value="NOT_STARTED"/>
 <newValue value="NOT_STARTED"/>
 </OldProgressStatusCode>
 <BillableFlag>
 <oldValue value="N"/>
 <newValue value="N"/>
 </BillableFlag>
 <ChargeableFlag>
 <oldValue value="N"/>
 <newValue value="N"/>
 </ChargeableFlag>
 <ActualStartDate>
 <oldValue value="False"/>
 <newValue value="01-01-2019"/>
 </ActualStartDate>
 <ActualFinishDate>
 <oldValue value=""/>
 <newValue value=""/>
 </ActualFinishDate>
 <StartDate>
 <oldValue value="01-01-2019"/>
 <newValue value="01-01-2019"/>
```

```
    </StartDate>
    <FinishDate>
    <oldValue value="05-01-2019"/>
    <newValue value="05-01-2019"/>
    </FinishDate>
    <PercentComplete>
    <oldValue value="0"/>
    <newValue value="25"/>
    </PercentComplete>
    <LastUpdatedBy>
    <oldValue value="Connor.Horton"/>
    <newValue value="Connor.Horton"/>
    </LastUpdatedBy>
    </ProjectTaskProgressStatusChangedInfo>
</content>
```

Public Events for Project Milestone Completion

If you want Oracle PPM Cloud to signal whenever a project milestone is completed, then you must use the ERP Business Events REST Endpoints to enable the feature. Keep in mind that completing financial tasks that are flagged as milestones doesn't generate signals.

For example, if you want to create a billing event whenever a project milestone is completed, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project milestone is completed.
2. Integration developers must create event handlers that subscribe to these signals and create a billing event whenever a project milestone is completed.

Attributes in the Payload for Project Milestone Completion Event

This table lists and describes the attributes in the payload.

Attribute	Description
ProjElementId	Unique identifier of the task. This value is the same as Task ID.
Description	Text description of the project milestone.
ProjectId	Unique identifier of the project.
FinishDate	The date when work is scheduled to end for a project milestone. The format is DD-MM-YYYY.
ActualFinishDate	The actual finish date for the project milestone as opposed to a planned finish date for the project milestone. The format is DD-MM-YYYY.
LastUpdatedBy	Name of the person who last updated the record.

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Sample Payload for Project Milestone Completion Event

Let's look at a sample payload that's generated when a project milestone is completed.

```
<content>
 <ProjectMilestoneCompletionInfo xmlns="http://vision/apps/projects/projectManagement/common/publicModel/
entity/events/schema/ProjPlanLineEO">
 <ProjElementId>
 <oldValue value="300100111675917"/>
 <newValue value="300100111675917"/>
 </ProjElementId>
 <Description>
 <oldValue value="Milestone: Customer Sign Off of Tested Software"/>
 <newValue value="Milestone: Customer Sign Off of Tested Software"/>
 </Description>
 <ProjectId>
 <oldValue value="300100082280694"/>
 <newValue value="300100082280694"/>
 </ProjectId>
 <FinishDate>
 <oldValue value="31-01-2019"/>
 <newValue value="31-01-2019"/>
 </FinishDate>
 <ActualFinishDate>
 <oldValue value=""/>
 <newValue value="31-01-2019"/>
 </ActualFinishDate>
 <LastUpdatedBy>
 <oldValue value="Connor.Horton"/>
 <newValue value="Connor.Horton"/>
 </LastUpdatedBy>
 </ProjectMilestoneCompletionInfo>
</content>
```

Public Events for Project Resource Request Status Changes

If you want Oracle PPM Cloud to signal whenever changes happen as below, then you must use the ERP Business Events REST Endpoints to enable the feature.

- Project resource request statuses change
- New request is created in Open and Pending Adjustment but not Draft status
- Resource assignments are adjusted or canceled

Suppose a request changed from Open to Nominated for Assignment status, or a request changed from Nominated for Assignment to Fulfilled status, then the event sends you a signal.

Keep in mind that Oracle PPM Cloud doesn't signal if the request details are updated, for example, the requested quantity is updated, but the status isn't updated.

Integration developers and administrators can subscribe to public events from the Oracle Integration Cloud using the Oracle ERP Cloud Adapter. Then, they can use the information in the payload to configure event handlers that perform

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business operations. For example, if you want to advertise open project resource requests internally using a third party system so that the resources can contact the resource manager to fulfill the request, then:

1. Project application administrator enable this feature. Oracle PPM Cloud signals when an open resource request is created.
2. Integration developers create event handlers that subscribe to these signals and send an advertisement internally to the resources.

Attributes in the Payload for Resource Request Status Change Event

This table lists and describes the attributes in the payload.

Attribute	Description
ResourceRequestId	Identifier of the project resource request.
ProjectId	Identifier of the project associated with the resource request.
StatusCode	Code of the resource request status.
PreviousStatusCode	Code of the previous resource request status.
LastUpdatedByUserName	Name of the person who last updated the record.
LastUpdatedDate	Date when the record was last updated.

Sample Payload for Project Resource Request Status Changes Event

Let's look at a sample payload that's generated when the status of a request changes from DRAFT to OPEN.

```
<content>
 <ProjectResourceRequestStatusChangedInfo xmlns="http://vision/apps/projects/resourceManagement/request/
model/entity/events/schema/ResourceRequestEO">
 <ResourceRequestId>
 <oldValue value="300100111675917"/>
 <newValue value="300100111675917"/>
 </ResourceRequestId>
 <ProjectId>
 <oldValue value="300100082280694"/>
 <newValue value="300100082280694"/>
 </ProjectId>
 <StatusCode>
 <oldValue value="DRAFT"/>
 <newValue value="OPEN"/>
 </StatusCode>
 <PreviousStatusCode>
 <oldValue value="DRAFT"/>
 <newValue value="OPEN"/>
 </PreviousStatusCode>
 <LastUpdatedBy>
 <oldValue value="Conor.Horton"/>
 <newValue value="Conor.Horton"/>
 </LastUpdatedBy>
 </ProjectResourceRequestStatusChangedInfo>
```

```
</content>
```

Public Event for Project Gate Status Changes

If you want Oracle Project Portfolio Management Cloud to signal whenever a project gate status changes, such as a gate going from closed to in review status or from in review to open, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to initiate gate approval activities in Oracle Integration Cloud whenever a project gate status changes, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project gate status changes.
2. Integration developers must create event handlers that subscribe to these signals and send an email notification whenever the status of a project gate changes.

This public event initiates whenever the status of a project gate changes. For example, when a gate opens.

Below is the list of gate status with allowable forward and backward statuses:

Initial Status	Next Forward Status	Next Backward Status
Closed	In Review or Terminated	N/A
In Review	Open or Terminated	Closed
Open	N/A	In Review
Terminated	N/A	Closed

- The public event doesn't initiate when updating gates, like adding or removing gate approvers.
- The public event doesn't initiate on the gate creation in closed status or on gate deletion.
- You can subscribe to the event using Oracle Integration Cloud (OIC) to begin additional steps for completing your business process.

Attributes in the Payload for the Project Gate Status Change Event

This table lists and describes the attributes in the payload.

Attribute	Description
ProjElementId	Unique identifier of the project task.
ProjectId	Identifier of the project associated with the task.
GateStatusCode	The code for the status of the gate.Valid values are IN_REVIEW, OPEN, CLOSED, and TERMINATED. Value is NULL when the task is not a gate.

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Attribute	Description
UpdateSource	The source from which the task was last updated.

Sample Payload for Project Gate Status Change Event

Let's look at a sample payload that's generated when the status of a gate changes.

```
<process xmlns="http://xmlns.vision.com/PublicEventHandler/Invoker">
 <SubscriberId>abcs1245</SubscriberId>
 <ns0:ProjectGateStatusChangedInfo xmlns:ns0="http://xmlns.oracle.com/apps/projects/projectManagement/
common/publicModel/entity/events/schema/ProjPlanLineEO>
 <ns0:ProjElementId>
 <ns0:newValue value="300100543759876"/>
 <ns0:oldValue value="300100543759876"/>
 </ns0:ProjElementId>
 <ns0:ProjectId>
 <ns0:newValue value="300100543713894"/>
 <ns0:oldValue value="300100543713894"/>
 </ns0:ProjectId>
 <ns0:GateStatusCode>
 <ns0:newValue value="IN_REVIEW"/>
 <ns0:oldValue value="CLOSED"/>
 </ns0:GateStatusCode>
 <ns0:UpdateSource>
 <ns0:newValue value="BTREST"/>
 <ns0:oldValue value="PPREST"/>
 </ns0:UpdateSource>
 </ns0:ProjectGateStatusChangedInfo>
</process>
```

Public Event for Project Gate Approver Status Changes

If you want Oracle Project Portfolio Management Cloud to signal whenever the approval status for a gate is changed by an approver such as when a gate is approved or rejected by an approver, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, to send a notification in Oracle Integration Cloud whenever the approval status for a gate is changed by an approver, then:

1. You, as a project application administrator, must enable this feature.
2. Integration developers must create event handlers that subscribe to these signals and send an email notification whenever the project gate is approved.

Attributes in the Payload for Project Gate Approver Status Change Event

This table lists and describes the attributes in the payload.

Attribute	Description
ApprovalId	Unique identifier of the Gate Approver.

Attribute	Description
GateElementId	Unique identifier of the gate.
ProjectId	Identifier of the project associated with the task.
ApprovalStatus	Status set for a gate by the approver. Valid values are NULL, APPROVED or REJECTED.
LastUpdatedBy	The name of the user who updated the gate approval status.
LastUpdateDate	Date when the approval status was last changed.
DecisionComments	Comments by the approver.

Sample Payload for Project Gate Approver Status Change Event

Let's look at a sample payload that's generated when the status of a gate approver changes.

```
<process xmlns="http://xmlns.vision.com/PublicEventHandler/Invoker">
 <ns0:ProjectGateApproverStatusChangedInfo xmlns="http://oracle/apps/projects/resourceManagement/request/
model/entity/events/schema/ResourceRequestEO">
 <subscriberId>abcs1245H</subscriberId>
 <ns0:ProjectGateApproverStatusChangedInfo xmlns:ns0="http://xmlns.oracle.com/apps/projects/
projectManagement/common/publicModel/entity/events/schema/PjtGateApproversEO">

<ns0:ApprovalId>
 <ns0:newValue value="300100543759877"/>
 <ns0:oldValue value="300100543759877"/>
 </ns0:ApprovalId>
 <ns0:GateElementId>
 <ns0:newValue value="300100543759876"/>
 <ns0:oldValue value="300100543759876"/>
 </ns0:GateElementId>
 <ns0:ProjectId>
 <ns0:newValue value="300100543713894"/>
 <ns0:oldValue value="300100543713894"/>
 </ns0:ProjectId>
 <ns0:ApprovalStatus>
 <ns0:newValue value="APPROVED"/>
 <ns0:oldValue value=""/>
 </ns0:ApprovalStatus>
 <ns0:LastUpdatedBy>
 <ns0:newValue value="Connor Horton"/>
 <ns0:oldValue value="Connor.Horton"/>
 </ns0:LastUpdatedBy>
 <ns0:LastUpdateDate/>
 <ns0:newValue value="2021-08-18T08:28:04"/>
 <ns0:oldValue value="2021-08-18T08:26:56"/>
 <ns0:LastUpdateDate/>
 <ns0:DecisionComments>
 <ns0:newValue value="Approving the GateTask"/>
 <ns0:oldValue value=" "/>
 </ns0:DecisionComments>
 </ns0:ProjectGateApproverStatusChangedInfo>
</process>
```

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Public Event for Project Change Order Changes

If you want Oracle PPM Cloud to signal whenever project change order status or stage or priority changes, then you must use the ERP Business REST Endpoints to enable the feature. Keep in mind that creating or deleting change orders doesn't generate signals.

For example, if you want to initiate an activity in another application whenever a change order status changes to In Progress, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when project change order status changes.
2. Integration developers must create event handlers that subscribe to these signals and initiate an activity whenever the project change order status changes to In Progress.

Attributes in the Payload for Project Change Order Changes Event

This table lists and describes the attributes in the payload.

Attribute	Description
changeDocId	Unique identifier of a project change order. Required for PATCH operation.
ChangeDocumentNumber	Unique number of the change order. Application calculated field.
Comments	User comments for the change order.
CreatorId	Identifier of the creator for a change order. Required for POST operation if Creator Name or Creator Email isn't provided.
Name	Name of the change order.
OwnerId	Unique identifier of the owner of the change order. The default value is the creator of the change order.
Priority	The code of the priority of a change order. Valid values are HIGH, LOW, and MEDIUM. The default value is MEDIUM.
ProjectId	Unique identifier of the project for which the change document is created.
Reason	The code of the reason for which the change order is created, rejected, and canceled. Valid values are BUDGET_REVISION, CLIENT_SCOPE_CHANGES, CONTRACT_MODIFICATION, DESIGN_CHANGES, GENERAL, OTHER, SCHEDULE_MODIFICATION, and SCOPE_REVISION. The default value is GENERAL.
Stage	The code of the current stage of a change order. Valid values are CREATE, IMPACT_ANALYSIS, APPROVAL, CLOSE, REVIEW, and IMPLEMENTATION. The default value is CREATE.
Status	The code of the current status of a change order. Status is derived from the stage of the change order. You need to mention status only when you want to cancel the change order. Valid value is CANCELED.
TaskId	Unique identifier of the task for which a change document is created.
LastUpdatedBy	Name of the person who last updated the record.
LastUpdateDate	Displays the date when the record was last updated.

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Sample Payload for Project Change Order Changes Event

Let's look at a sample payload that's generated when a change order is moved from the create stage to the impact assessment stage.

```xml
<ns0:ProjectChangeOrderStatusChangedInfo xmlns:ns0="http://xmlns.vision.com/apps/projects/
projectManagementControl/changeManagement/publicModel/entity/events/schema/ChangeDocumentEO">
 <ns0:changeDocId>
 <ns0:newValue value="300100576852651"/>
 <ns0:oldValue value="300100576852651"/>
 </ns0:changeDocId>
 <ns0:ChangeDocumentNumber>
 <ns0:newValue value="20082"/>
 <ns0:oldValue value="20082"/>
 </ns0:ChangeDocumentNumber>
 <ns0:Name>
 <ns0:newValue value="RequirementRevisionCO"/>
 <ns0:oldValue value="RequirementRevisionCO"/>
 </ns0:Name>
 <ns0:OwnerId>
 <ns0:newValue value="300100024326751"/>
 <ns0:oldValue value="300100024326751"/>
 </ns0:OwnerId>
 <ns0:Priority>
 <ns0:newValue value="MEDIUM"/>
 <ns0:oldValue value="MEDIUM"/>
 </ns0:Priority>
 <ns0:ProjectId>
 <ns0:newValue value="300100576408595"/>
 <ns0:oldValue value="300100576408595"/>
 </ns0:ProjectId>
 <ns0:ProjElementId>
 <ns0:newValue value="300100576470668"/>
 <ns0:oldValue value="300100576470668"/>
 </ns0:ProjElementId>
 <ns0:CreatorId>
 <ns0:newValue value="300100024326751"/>
 <ns0:oldValue value="300100024326751"/>
 </ns0:CreatorId>
 <ns0:Status>
 <ns0:newValue value="IN_PROGRESS"/>
 <ns0:oldValue value="DRAFT"/>
 </ns0:Status>
 <ns0:Stage>
 <ns0:newValue value="IMPACT_ANALYSIS"/>
 <ns0:oldValue value="CREATE"/>
 </ns0:Stage>
 <ns0:Reason>
 <ns0:newValue value="GENERAL"/>
 <ns0:oldValue value="GENERAL"/>
 </ns0:Reason>
 <ns0:Comments>
 <ns0:newValue value=""/>
 <ns0:oldValue value=""/>
 </ns0:Comments>
 <ns0:LastUpdatedBy>
 <ns0:newValue value="ABRAHAM.MASON"/>
 <ns0:oldValue value="ABRAHAM.MASON"/>
 </ns0:LastUpdatedBy>
 <ns0:LastUpdateDate>
 <ns0:newValue value="2023-05-29T06:55:05"/>
 <ns0:oldValue value="2023-05-29T06:51:59"/>
 </ns0:LastUpdateDate>
 </ns0:ProjectChangeOrderStatusChangedInfo>
```

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Public Event for Project Issue Status Changes

If you want Oracle PPM Cloud to signal whenever project issue status or priority changes, then you must use the ERP Business REST Endpoints to enable the feature. Keep in mind that creating or deleting issues doesn't generate signals.

For example, if you want to initiate an activity in another application whenever a project issue status changes to Working, then:

- You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project issue status changes.
- Integration developers must create event handlers that subscribe to these signals and initiate an activity whenever the project issue status changes to Working.

Attributes in the Payload for Project Issue Status Changes Event

This table lists and describes the attributes in the payload.

Attribute	Description
IssueId	Automatically generated numeric ID for the issue.
IssueUISummary	Summarized description of the issue.
IssueNumber	Displays the issue number.
IssueOwnerId	A generated numeric ID for the person who owns the issue.
ProjectId	Unique identifier of the project.
PriorityCode	Code representing the priority of the project issue, for example, HIGH, MEDIUM, or LOW.
StatusCode	Code representing status of the project issue action item, for example, NOT STARTED, IN PROGRESS, or COMPLETE.
IssueTypeId	Identifier of the project issue the item is created for.
IssueDescription	Detailed description of the project issue.
DateCreated	Date of creation of the issue.
ClosedDate	Date when the issue is closed.
Resolution	Text to provide the resolution summary when closing an issue.
IssueCreatorId	Identifier of the creator for an issue.
IssueUpdatedByName	Name of owner that updated issue.
ClosedReasonCode	Code representing the reason for closing a project issue, for example CANCELED, DUPLICATE, OBSOLETE, or RESOLVED.
LastUpdateDate	The date when the issue details was last updated.

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Attribute	Description
TaskId	ID of the task the issue was created for.
NeedByDate	The date by which the action item should be resolved or closed.

Sample Payload for Project Issue Status Changes Event

Let's look at a sample payload that's generated when the priority of an issue is moved from medium to high and status is set to working from new.

```
<ns0:ProjectIssueStatusChangedInfo xmlns:ns0="http://xmlns.vision.com/apps/projects/
projectManagementControl/issues/publicModel/entity/events/schema/IssueEO">
 <ns0:IssueId>
 <ns0:newValue value="300100576852653"/>
 <ns0:oldValue value="300100576852653"/>
 </ns0:IssueId>
 <ns0:Summary>
 <ns0:newValue value="Requirement not clear"/>
 <ns0:oldValue value="Requirement not clear"/>
 </ns0:Summary>
 <ns0:IssueNumber>
 <ns0:newValue value="14265"/>
 <ns0:oldValue value="14265"/>
 </ns0:IssueNumber>
 <ns0:OwnerId>
 <ns0:newValue value="300100024326751"/>
 <ns0:oldValue value="300100024326751"/>
 </ns0:OwnerId>
 <ns0:ProjectId>
 <ns0:newValue value="300100576408595"/>
 <ns0:oldValue value="300100576408595"/>
 </ns0:ProjectId>
 <ns0:PriorityCode>
 <ns0:newValue value="HIGH"/>
 <ns0:oldValue value="MEDIUM"/>
 </ns0:PriorityCode>
 <ns0:StatusCode>
 <ns0:newValue value="WORKING"/>
 <ns0:oldValue value="NEW"/>
 </ns0:StatusCode>
 <ns0:IssueTypeId>
 <ns0:newValue value="1"/>
 <ns0:oldValue value="1"/>
 </ns0:IssueTypeId>
 <ns0:Description>
 <ns0:newValue value=""/>
 <ns0:oldValue value=""/>
 </ns0:Description>
 <ns0:DateCreated>
 <ns0:newValue value="2023-05-29T00:00:00"/>
 <ns0:oldValue value="2023-05-29T00:00:00"/>
 </ns0:DateCreated>
 <ns0:DateClosed>
 <ns0:newValue value=""/>
 <ns0:oldValue value=""/>
 </ns0:DateClosed>
 <ns0:ClosedReason>
 <ns0:newValue value=""/>
 <ns0:oldValue value=""/>
 </ns0:ClosedReason>
 <ns0:Resolution>
 <ns0:newValue value=""/>
```

```
<ns0:oldValue value=""/>
</ns0:Resolution>
<ns0:CreatedById/>
<ns0:TaskId>
<ns0:newValue value="300100576456783"/>
<ns0:oldValue value="300100576456783"/>
</ns0:TaskId>
<ns0:NeedByDate>
<ns0:newValue value=""/>
<ns0:oldValue value=""/>
</ns0:NeedByDate>
<ns0:LastUpdatedBy>
<ns0:newValue value="ABRAHAM.MASON"/>
<ns0:oldValue value="ABRAHAM.MASON"/>
</ns0:LastUpdatedBy>
<ns0:LastUpdateDate>
<ns0:newValue value="2023-05-29T07:15:38"/>
<ns0:oldValue value="2023-05-29T07:14:05"/>
</ns0:LastUpdateDate>
</ns0:ProjectIssueStatusChangedInfo>
```

Public Event for Project Work Plan Baseline Creation

f you want Oracle PPM Cloud to signal whenever a project work plan baseline is created, then you must use the ERP Business REST Endpoints to enable the feature. Keep in mind that setting an existing baseline as primary baseline doesn't generate signals.

For example, to start an activity in another application whenever a project work plan baseline is created, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project work plan baseline is created.
2. Integration developers must create event handlers that subscribe to these signals and start an activity whenever a project work plan baseline is created.

Attributes in the Payload for Project Work Plan Baseline Creation Event

This table lists and describes the attributes in the payload.

Attribute	Description
BaselineId	Unique identifier of the baseline. Value is auto-generated.
CreationDate	Date when the baseline was taken. Value is defaulted to the current date when the baseline is created.
Name	Name of the baseline.
PrimaryFlag	Indicates whether the baseline is the primary baseline.
ProjectId	Unique identifier of the project.

Sample Payload for Project Work Plan Baseline Creation Event

Let's look at a sample payload that's generated when a new baseline is created for the project work plan.

```
<ns0:ProjectWorkPlanBaselineCreatedInfo xmlns:ns0="http://xmlns.vision.com/apps/projects/projectManagement/
common/publicModel/entity/events/schema/PjtBaselineEO">
```

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```
<ns0:BaselineId>
<ns0:newValue value="300100576856609"/>
</ns0:BaselineId>
<ns0:CreationDate>
<ns0:newValue value="2023-05-29T07:02:56"/>
</ns0:CreationDate>
<ns0:BaselineName>
<ns0:newValue value="ProjectKickoff"/>
</ns0:BaselineName>
<ns0:PrimaryBaselineFlag>
<ns0:newValue value="Y"/>
</ns0:PrimaryBaselineFlag>
<ns0:ProjectId>
<ns0:newValue value="300100576408595"/>
</ns0:ProjectId>
</ns0:ProjectWorkPlanBaselineCreatedInfo>
```