Oracle

Project Portfolio Management Cloud Implementing Grants Management

Release 12

This guide also applies to on-premises implementations

ORACLE

Oracle® Project Portfolio Management Cloud Implementing Grants Management

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Preface

This preface introduces information sources that can help you use the application.

Oracle Applications Help

Use the help icon to access Oracle Applications Help in the application. If you don't see any help icons on your page, click the Show Help icon in the global header. Not all pages have help icons. You can also access Oracle Applications Help at https://fusionhelp.oracle.com.

Using Applications Help

Watch: This video tutorial shows you how to find help and use help features.

Additional Resources

- **Community:** Use **Oracle Applications Customer Connect** to get information from experts at Oracle, the partner community, and other users.
- **Guides and Videos:** Go to the **Oracle Help Center** to find guides and videos.
- **Training:** Take courses on Oracle Cloud from **Oracle University** .

Documentation Accessibility

For information about Oracle's commitment to accessibility, see the **Oracle Accessibility Program** .

Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.

1 Overview

Grants Management Offering: Overview

In the Project Management business process area, your enterprise can configure how you manage awards, projects, including how to budget, collect costs, bill customers, and report performance.

Before you begin, use the Setup and Maintenance work area to access reports for each offering, including full lists of setup tasks, the functional areas and features that you can select when you configure the offering, and business objects and enterprise applications that are associated with the offering.

The first implementation step is to configure the offerings in the Setup and Maintenance work area by selecting the offerings, functional areas, and features that you want to make available to implement.

The following list describes the project-related functional areas for the Grants Management offering.

Functional Area	Description
Project Organizations	Configure how you manage project units, project classifications, organization hierarchies, and business unit options.
Project Foundation	Configure how you manage project organizations, create projects, plan project tasks, and review project details. This common foundation is shared across the Oracle Fusion Project Financial Management applications.
Burdening	Configure options used to calculate, group, and apply indirect costs to project expenditure items to report and account for the total cost of a project.
Grants Management Foundation	Configure how you create and maintain awards, award funding, and award projects.
Project Control	Configure how you monitor project execution, progress, budgeting, and forecasting.
Project Costing Base	Configure how you collect, monitor, and influence the costs associated with the delivery of the project.
Capital Projects	Configure how you record asset costs, calculate capitalized interest, and create events to group costs and assets.
Project Contracts	Configure the funding and billing relationships between the external parties who require the project and the parties who deliver the project.
Project Billing Base	Configure how you invoice customers and recognize revenue for project contracts.
Internal Project Billing	Configure how you use internal invoices to share costs and revenue across projects and organizations.
Project Performance Reporting	Configure how you collect and review project performance data against defined performance areas.

Functional Area	Description
Budgetary Control and Encumbrance Accounting	This enterprise-level functional area option is typically used by public sector customers. Enable this functional area if you plan to use budgetary control with or without encumbrance accounting in any part of your organization.
Project Accounting	Configure subledger accounting and set up subledger accounting rules for Project Financial Management.
Project Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project management data.
Project Revenue and Billing Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project revenue and billing data.
Project Performance Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project performance data.
Project Control and Costing Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project control and costing data.

The following functional areas are also in the Grants Management offering, but aren't unique to this offering:

- Initial Users
- Enterprise Profile
- Legal Structures
- Financial Reporting Structures
- Organization Structures
- Workforce Structures
- Users and Security
- Transaction Tax
- Transactional Business Intelligence
- Application Extensions

Optionally, create one or more implementation projects for the offerings, functional areas, and features that you want to implement first, which generates task lists for each project. The application implementation manager can customize the task list and assign and track each task.

If you enable all functional areas and features, the generated task list for this offering will contain the groups of tasks listed in the following table:

Task List	Description
Verify Grants Management Offering Implementation Status	Verify that the implementation status of the Grants Management offering is set to In Progress or Implemented. The implementation status enables the grants functionality throughout Oracle Fusion Project Portfolio Management applications.
Define Initial Users for Project Financial Management	Populate the product tables with the users and roles held in LDAP and then create and provision job and data roles for the initial users.

Task List	Description
Define Enterprise Profile for Project Financial Management	Access your enterprise organization, such as legal entities, legal jurisdictions and authorities, and business units, and specify their use in Project Financial Management applications.
Define Financial Reporting Structures for Project Financial Management	Define the accounting configuration and chart of accounts that serve as a framework for how financial records are maintained for an organization.
Define Organization Structures for Project Financial Management	Configure business units for controlling transactions and workforce structures for managing the enterprise.
Define Project Organizations	Manage the organizations that own, control, or contribute to projects, including the project units and the project and business unit implementation options used by Project Financial Management.
Define Users and Security for Project Financial Management	Define and assign security policies and data roles to enable users to perform functions related to their job roles.
Define Project Foundation Configuration	Configure all foundation components for creating and maintaining projects in Oracle Fusion Project Portfolio Management.
Define Project Control Configuration	Configure Oracle Fusion Project Control to monitor project execution, progress, budgeting, and forecasting.
Define Project Costing Configuration	Configure Oracle Fusion Project Costing to collect, monitor, and influence the costs associated with the delivery of the project.
Define Project Billing Configuration	Configure Oracle Fusion Project Billing to invoice customers and recognize revenue for project contracts.
Define Project Performance Reporting Configuration	Configure Oracle Fusion Project Performance Reporting to collect and review project data against defined performance areas.
Manage Project Templates	Manage templates to quickly create projects that share common features, attributes, and options.
Define Grants Management Configuration	Configure Oracle Fusion Grants Management to create and maintain awards, award funding, and award projects.
Define Budgetary Controls for Project Financial Management	Configure the applicability of budgetary control on various business process flows, and set up the business rules to enforce budgetary control.
Define Subledger Accounting Rules for Project Financial Management	Configure subledger accounting and set up subledger accounting rules for Project Financial Management.
Define Transactional Business Intelligence Configuration	Define the configuration for Oracle Transactional Business Intelligence to enable business intelligence reporting with the Oracle Fusion Applications.
Define Application Extensions for Project Financial Management	Configure specific extensions for customization of Project Financial Management.

You can also customize and extend applications using other tools. For more information, see the Oracle Applications Cloud Customizing the Applications for Functional Administrators guide.

Rapid Implementation of Grants Management

Project application administrators can use the rapid implementation feature to quickly set up the Grants Management offering by populating and loading the required business objects using the Rapid Implementation for Project Financial Management Applications macro-enabled Microsoft Excel workbook. This workbook has worksheets for uploading data for key business objects and tasks such as business unit, organizations, resources, burdening, and subledger accounting. For more information on the rapid implementation feature, see the chapter Rapid Implementation of Project Financial Management Applications in the Oracle Project Portfolio Management Cloud Implementing Project Financial Management guide.

Related Topics

- Rapid Implementation of Project Financial Management Applications

Common Implementation: Overview

Common implementation involves performing tasks that are common and apply to multiple offerings. The Define Common Applications Configuration, Define Transactional Business Intelligence, and Define Extensions task lists comprise these common setup and implementation tasks. You can search and access the common implementation task lists and tasks from the Setup and Maintenance work area.

Define Common Applications Configuration

Within an offering, you may find the Define Common Applications Configuration task list containing several tasks to manage common functional areas, for example:

- Setting up security, enterprise structures, geographies, and business units.
- Creating and maintaining user accounts and synchronizing the list of users and roles stored in Lightweight Directory Access Protocol (LDAP).

Define Transactional Business Intelligence

Use the Define Transactional Business Intelligence task list to configure business intelligence to gain real-time insight into transactional data. You can also secure the transactional data and manage the users accessing that data.

Define Extensions

Use the Define Extensions task list to configure offering-specific extensions to support customization of business objects. For example, the task list comprises tasks that help you to:

- Set options for the help features available at the site, which might include collaboration, access to external web sites, and settings for custom help content.
- Review and manage objects, for example currencies and reference data sets, that are shared across applications.
- Configure common reference objects such as flexfields, document sequences, and profile options that affect the functionality and look of Oracle Applications Cloud.

Understanding Implementation Structures

Setup and Maintenance: Overview

Oracle Functional Setup Manager enables rapid and efficient planning, configuration, implementation, deployment, and ongoing maintenance of Oracle Applications through self-service administration.

All Oracle Functional Setup Manager functionality is available from the Setup and Maintenance work area, which offers you the following benefits:

- **Self-Service Administration**:
  Manage all aspects of functional setup of Oracle Fusion applications at the business user level with an integrated, guided process for planning, configuration, implementation, deployment, and maintenance.
- **Configurable and Extensible**:
  Configure and Extend prepackaged list of tasks for setting up Oracle Fusion applications to better fit your business requirements.
- **Complete Transparency**:
  Get full visibility of Oracle Fusion applications end-to-end setup requirements with auto-generated, sequential task lists that include prerequisites and address dependencies.
- **Prepackaged Lists of Implementation Tasks**:
  Task lists can be easily configured and extended to better fit with business requirements. Autogenerated, sequential task lists include prerequisites and address dependencies to give full visibility to end-to-end setup requirements of Oracle Applications.
- **Rapid Start**:
  Specific implementations can become templates to facilitate reuse and rapid-start for comparable Oracle Applications across many instances.
- **Comprehensive Reporting**:
  A set of built-in reports helps to analyze, validate and audit configurations, implementations, and setup data of Oracle Applications.

With Oracle Functional Setup Manager you can:

- Learn about and analyze implementation requirements.
- Configure Oracle Applications to match your business needs.
- Achieve complete visibility to set up requirements through guided, sequential task lists downloadable into Excel for project planning.
- Enter setup data through easy-to-use user interfaces available directly from the task lists.
- Export and import data from one instance to another for rapid setup.
- Validate setup by reviewing setup data reports.
- Implement all Oracle Applications through a standard and consistent process.

Offerings: Explained

Offerings are application solution sets representing one or more business processes and activities that you typically provision and implement as a unit. They are, therefore, the primary drivers of functional setup of Oracle Fusion applications. Some of the examples of offerings are Financials, Procurement, Sales, Marketing, Order Orchestration, and Workforce Deployment. An offering is the highest level grouping of Oracle Fusion Applications functionality. They include functional areas, and alternative business rules known as features.

Functional Areas: Explained

A functional area is a grouping of functionality within an offering. It may be an optional piece of functionality that you may want to implement as part of an offering. Optional functional areas can be included or excluded from their parent offering. Functional areas may be hierarchical, and therefore may be subordinate to another functional area. An offering has at least one base or core functional area and may have one or more optional functional areas. Additionally, one or more or features may be associated to an offering. Base functional areas indicate the core functionality that you need to implement for the offering to be operational.Optional functional areas indicate optional functionality that you may or may not implement for an offering.

Common Functional Areas

Some core functionality essential to an offering such as setting the Initial Users or the Legal Structures may be shared across offerings. These are known as common functional areas and appear across offerings. Although most of the tasks associated to a common functional area are the same regardless of the offering you implement, there may be some offering-specific tasks.

In general once you implement a common functional area for a given offering, you won't need to repeat its implementation for the remaining offerings, however, it's recommended you check if there is any offering specific tasks that may still require your attention.

Base and Optional Functional Areas

Functional areas that support core functionality for an offering are known as base functional areas and must be implemented in order for the offering to be operational. Other functional areas known as optional functional areas support processes or functionality that can be implemented at your discretion depending on the business requirements. These can be implemented later during the implementation process.

Features: Explained

Offerings include optional or alternative business rules or methods called feature choices, used to fine-tune business processes and activities supported by an offering or a functional area. You make feature selections according to your business requirements to get the best fit with the offering. If the selected offerings and functional areas have dependent features then those features are applicable when you implement the corresponding offering or functional area.

Feature choices can be one of three different types:

Yes or No

If a feature can either be applicable or not be applicable to an implementation, a single check box is presented for selection. Check or deselect to specify yes or no respectively.

Single Select

If a feature has multiple choices but only one can be applicable to an implementation, multiple choices are presented as radio buttons. You can turn on only one of those choices.

Multi-Select

If the feature has multiple choices but one or more can be applicable to an implementation then all choices are presented with a check box. Select all that apply by checking the appropriate choices.

Implementation Task Lists: Explained

The configuration of the offerings determine how the list of setup tasks is generated during the implementation phase. Only the setup tasks needed to implement the selected offerings, functional areas and features are included in the task list. This gives you the targeted task list necessary to meet your implementation requirements.

Managing an Implementation

Enabling Offerings: Explained

When planning your implementation, you decide what business processes your organization or company performs or supports. These decisions determine the offerings and functional areas you want to implement. You then configure the offerings and functional areas that support the activities your organization or company performs. During the configuration process, you specifically enable offerings and functional areas for use before you implement them.

Enabling Offerings and Functional Areas

Use the Setup and Maintenance work area to help decide which offerings to enable for implementation. Once you decide to use an offering, you can select the Configure button to choose the configuration details and enable the offering, associated functional areas, and features. All the base functional areas of an offering are automatically enabled for implementation when you enable the parent offering. You choose which optional functional areas to enable. The functional areas appear in an expandable and collapsible hierarchy to facilitate progressive decision making for implementation.

Enabling Features

Features are optional or alternative business rules or methods used to fine-tune business processes and activities supported by an offering or a functional area. If features are available for the offering or functional areas, you can enable them to help meet your business requirements, if desired. In general, the features are set with a default configuration based on their typical usage in most implementations. You should always review the available features for the offering and functional areas and select them as appropriate. Dependent features appear visible when the feature choice they depend on is selected for implementation.

Enabling Offerings: Procedure

You enable offerings to customize the functionality that matches the services you plan on implementing.

Enabling Offerings

To enable offerings, follow these steps.

1. Open the Setup and Maintenance work area **(Navigator > Setup and Maintenance)**.
2. In the Setup and Maintenance Offerings page, select the offering you're using, then click **Configure**.
3. In the Configure page, select the **Enable** check box for the offering. Also select the **Enable** check box for each of the functional areas you want to use.
4. Click the Features icon for the offering or functional area you have enabled, then enable any features you require. Select **Done** when complete.
5. Select **Done** to return to the Offerings page then repeat the same steps for each of the offerings you are using.

Implementing Offerings: Explained

Once you have configured the offering you want to implement, you can start performing the appropriate task to setting your applications up to support your business processes. Functional Setup Manager provides two methods to set up the offerings and therefore applications depending on your business needs.

Offering based implementation

Following a predefined list of tasks required for the features you selected to implement. This method enables you to implement the functionality on an adopt-as-you-go based approach. It provides you direct access to the setup tasks saving you time as by default gives you visibility to the minimum requirements for your implementation. This is always the recommended method to implement your applications unless you require custom implementation task lists.

Project based implementation

Enables you to customize your implementation defining an implementation project with a tailored list of tasks, task assignment and implementation progress monitoring. Use of this method is recommended when you require a custom task list.

Offering Based Implementation: Explained

You can use the Setup and Maintenance work area to directly implement an entire offering or functional areas within an offering. You do not need to create an implementation project, and instead use a modular approach to your implementation.

You can complete setup of specific business areas quickly to start transactions, and then gradually adopt more and more application functionality as needed.

An offering or functional area-based approach means you set up various parts of an offering at different times. You can start with set up of the functional areas that you immediately need to adopt. Over time, you can continue to set up other functional areas as you start to adopt additional applications functionality. Offerings must be enabled for implementation in order for their functional areas to display. Offering or functional area-based implementation provides the following advantages:

- When you select an offering the relevant functional areas appear for selection. The common functional areas are those shared across offerings and are listed first. The functional areas that are only associated with the selected offering, are at the bottom of the list.
- A functional area usually has several setup tasks, but only a few of them require input before the application function is ready for transactions. The rest of the setup tasks are usually optional or have predefined default values based on common use cases. When you select a functional area for implementation, you can view just the required tasks, or you can view the full list of setup tasks for the functional area.

Executing Setup Tasks

You select the functional area you want to implement and the list of tasks that you need to perform appears. The tasks are organized with prerequisites and dependencies in mind. Select the task for which you want to enter data and then click Go to Task to render the page where you perform the task. If the setup data entered through a task can be segmented by a specific attribute, and therefore could be performed iteratively for each qualifying value, then the task may benefit from scope. Typical examples include tasks relevant to legal entities, business units, ledgers, tax regimes, and legislative data roles. For such tasks, you are prompted to pick a scope value before entering data. You can pick a scope value that was previously selected, select a new scope value, or create a new scope value and then select it. The selected value is a qualifying attribute of the setup data entered by way of the task, and therefore, different setup data can be entered for different scope values. Enter data as appropriate and once you finish, close the page and you return to the functional area list of tasks.

Note: You cannot perform a task if you do not have the proper security entitlement.

Project Based Implementation: Explained

You can create implementation projects to manage the implementation of an offering and functional areas as a unit throughout the implementation life cycle, or maintain the setup of specific business processes and activities customizing the list of tasks to complete their implementation.

An implementation project is the list of setup tasks you need to complete to implement selected offerings and functional areas. You create a project either by:

- selecting an offering and its functional areas you want to implement together, then customize the list of tasks for such offering and functional areas as applicable.
- selecting specific setup task lists and tasks you require for a specific configuration.

You can also assign these tasks to users and track their completion using the included project management tools.

Selecting Offerings

When creating an implementation project you see the list of offerings and functional areas that are configured for implementation. Implementation managers specify which of those offerings and functional areas to include in an implementation project. It is strongly recommended that you limit your selection to one offering per implementation project, even though the application does not prevent you from including more than one. The implementation manager should decide based on how they plan to manage their implementations. For example, if you implement and deploy different offerings at

different times, then having separate implementation projects help to manage the implementation life cycles. Furthermore, the more offerings you included in an implementation project, the bigger the generated task list is. This is because the implementation task list includes all setup tasks needed to implement all included offerings. Alternatively, segmenting into multiple implementation projects makes the process easier to manage and ensures that import and export sequence of the project data is straightforward in the correct sequence.

Why can't I see the tasks for my offerings in the panel tab?

Set the implementation status of your offerings to **In Progress** or **Implemented** using the **Change Configuration** action from the Administration section of the Setup and Maintenance work area to view the tasks for your offerings.

2 Define Synchronization of Users and Roles from LDAP

User and Role Synchronization: Explained

User accounts for users of Oracle Fusion Applications are maintained in your Lightweight Directory Access Protocol (LDAP) directory. The LDAP directory also holds information about roles provisioned to users.

During implementation, any existing information about users and their roles must be copied from the LDAP directory to the Oracle Fusion Applications tables. To copy this information, you use the task Run User and Roles Synchronization Process. This task calls the Retrieve Latest LDAP Changes process. You can perform the task Run User and Roles Synchronization Process from either an implementation project or the Setup and Maintenance work area.

Once the Oracle Fusion Applications tables are initialized with this information, it's maintained automatically.

3 Define Implementation Users

Define Implementation Users: Overview

Implementation users perform the setup tasks in Oracle Enterprise Resource Planning (ERP) Cloud and Oracle Supply Chain Management (SCM) Cloud implementation projects. This topic introduces the tasks in the Define Implementation Users task list. You can find more information about implementation users and tasks they perform in the product specific implementation and security guides for your offering.

Create Implementation Users

You must have at least one implementation user. To ensure segregation of critical duties, multiple implementation users are recommended. For example, one implementation user typically performs functional setup tasks and another performs security setup tasks. When you create implementation users, you also assign predefined job roles to them directly. The job roles vary with the tasks that the implementation users perform.

The cloud service administrator creates implementation users.

Related Topics

- Implementation Users: Explained

4 Define Enterprise Profile

Enterprise Structures: Overview

Oracle Fusion Applications have been designed to ensure your enterprise can be modeled to meet legal and management objectives. The decisions about your implementation of Oracle Fusion Applications are affected by your:

- Industry
- Business unit requirements for autonomy
- Business and accounting policies
- Business functions performed by business units and optionally, centralized in shared service centers
- Locations of facilities

Every enterprise has three fundamental structures, that describe its operations and provide a basis for reporting.

- Legal
- Managerial
- Functional

In Oracle Fusion, these structures are implemented using the chart of accounts and organization hierarchies. Many alternative hierarchies can be implemented and used for reporting. You are likely to have one primary structure that organizes your business into:

- Divisions
- Business Units
- Departments

Aligned these structures with your strategic objectives.

Legal Structure

The figure above shows a typical group of legal entities, operating various business and functional organizations. Your ability to buy and sell, own, and employ comes from your charter in the legal system. A corporation is:

- A distinct legal entity from its owners and managers.
- Owned by its shareholders, who may be individuals or other corporations.

Many other kinds of legal entities exist, such as sole proprietorships, partnerships, and government agencies.

A legally recognized entity can own and trade assets and employ people in the jurisdiction in which the entity is registered. When granted these privileges, legal entities are also assigned responsibilities to:

- Account for themselves to the public through statutory and external reporting.
- Comply with legislation and regulations.
- Pay income and transaction taxes.
- Process value added tax (VAT) collection on behalf of the taxing authority.

Many large enterprises isolate risk and optimize taxes by incorporating subsidiaries. They create legal entities to facilitate legal compliance, segregate operations, optimize taxes, complete contractual relationships, and isolate risk. Enterprises use legal entities to establish their enterprise's identity under the laws of each country in which their enterprise operates.

In the figure above:

- A separate card represents a series of registered companies.
- Each company, including the public holding company, InFusion America, must be registered in the countries where they do business.

- Each company contributes to various divisions created for purposes of management reporting. These are shown as vertical columns on each card.

For example, a group might have a separate company for each business in the United States (US), but have its United Kingdom (UK) legal entity represent all businesses in that country.

The divisions are linked across the cards so that a business can appear on some or all of the cards. For example, the air quality monitoring systems business might be operated by the US, UK, and France companies. The list of business divisions is on the Business Axis.

Each company's card is also horizontally striped by functional groups, such as the sales team and the finance team. This functional list is called the Functional Axis. The overall image suggests that information might, at a minimum, be tracked by company, business, division, and function in a group environment. In Oracle Fusion Applications, the legal structure is implemented using legal entities.

Management Structure

Successfully managing multiple businesses requires that you segregate them by their strategic objectives, and measure their results. Although related to your legal structure, the business organizational hierarchies do not have to be reflected directly in the legal structure of the enterprise. The management structure can include divisions, subdivisions, lines of business, strategic business units, profit, and cost centers. In the figure above, the management structure is shown on the Business Axis. In Oracle Fusion Applications, the management structure is implemented using divisions and business units as well as being reflected in the chart of accounts.

Functional Structure

Straddling the legal and business organizations is a functional organization structured around people and their competencies. For example, sales, manufacturing, and service teams are functional organizations. This functional structure is represented by the Functional Axis in the figure above. You reflect the efforts and expenses of your functional organizations directly on the income statement. Organizations must manage and report revenues, cost of sales, and functional expenses such as research and development and selling, general, and administrative expenses. In Oracle Fusion Applications, the functional structure is implemented using departments and organizations, including sales, marketing, project, cost, and inventory organizations.

Enterprise Structures Business Process Model: Explained

In Oracle Fusion Applications, the Enterprise Performance and Planning Business Process Model illustrates the major implementation tasks that you perform to create your enterprise structures. This process includes:

- Set Up Enterprise Structures business process, which consists of implementation activities that span many product families.
- Information Technology, a second Business Process Model which contains the Set Up Information Technology Management business process.
- Define Reference Data Sharing, which is one of the activities in this business process and is important in the implementation of the enterprise structures. This activity creates the mechanism to share reference data sets across multiple ledgers, business units, and warehouses, reducing the administrative burden and decreasing the time to implement.

The following figure and chart describes the Business Process Model structures and activities.

BPM Activities	Description
Define Enterprise	Define the enterprise to get the name of the deploying enterprise and the location of the headquarters.
Define Enterprise Structures	Define enterprise structures to represent an organization with one or more legal entities under common control. Define organizations to represent each area of business within the enterprise.

BPM Activities	Description
Define Legal Jurisdictions and Authorities	Define information for governing bodies that operate within a jurisdiction.
Define Legal Entities	Define legal entities and legal reporting units for business activities handled by the Oracle Fusion Applications.
Define Business Units	Define business units of an enterprise to perform one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it has a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss.
Define Financial Reporting Structures	Define financial reporting structures, including organization structures, charts of accounts, organizational hierarchies, calendars, currencies and rates, ledgers, and document sequences which are used in organizing the financial data of a company.
Define Chart of Accounts	Define chart of accounts including hierarchies and values to enable tracking of financial transactions and reporting at legal entity, cost center, account, and other segment levels.
Define Ledgers	Define the primary accounting ledger and any secondary ledgers that provide an alternative accounting representation of the financial data.
Define Accounting Configurations	Define the accounting configuration that serves as a framework for how financial records are maintained for an organization.
Define Facilities	Define your manufacturing and storage facilities as Inventory Organizations if Oracle Fusion tracks inventory balances there and Item Organizations if Oracle Fusion only tracks the items used in the facility but not the balances.
Define Reference Data Sharing	Define how reference data in the applications is partitioned and shared.

Note: Some product-specific implementation activities are not listed here and depend on the applications you are implementing. For example, you can implement Define Enterprise Structures for Human Capital Management, Project Management, and Sales Management.

Global Enterprise Configuration: Points to Consider

Start your global enterprise structure configuration by discussing what your organization's reporting needs are and how to represent those needs in the Oracle Fusion Applications. The following are some questions and points to consider as you design your global enterprise structure in Oracle Fusion.

- Enterprise Configuration
- Business Unit Management
- Security Structure
- Compliance Requirements

Enterprise Configuration

- What is the level of configuration needed to achieve the reporting and accounting requirements?
- What components of your enterprise do you need to report on separately?
- Which components can be represented by building a hierarchy of values to provide reporting at both detail and summary levels?
- Where are you on the spectrum of centralization versus decentralization?

Business Unit Management

- What reporting do I need by business unit?
- How can you set up your departments or business unit accounts to achieve departmental hierarchies that report accurately on your lines of business?
- What reporting do you need to support the managers of your business units, and the executives who measure them?
- How often are business unit results aggregated?
- What level of reporting detail is required across business units?

Security Structure

- What level of security and access is allowed?
- Are business unit managers and the people that report to them secured to transactions within their own business unit?
- Are the transactions for their business unit largely performed by a corporate department or shared service center?

Compliance Requirements

- How do you comply with your corporate external reporting requirements and local statutory reporting requirements?
- Do you tend to prefer a corporate first or an autonomous local approach?
- Where are you on a spectrum of centralization, very centralized or decentralized?

Modeling Your Enterprise Management Structure in Oracle Fusion: Example

This example uses a fictitious global company to demonstrate the analysis that can occur during the enterprise structure configuration planning process.

Scenario

Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion has purchased an Oracle Fusion Enterprise Resource Planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers. You are chairing a committee to discuss creation of a model for your global enterprise structure including both your US and UK operations.

InFusion Corporation

InFusion Corporation has 400 plus employees and revenue of 120 million US dollars. Your product line includes all the components to build and maintain air quality monitoring (AQM) applications for homes and businesses. You have two distribution centers and three warehouses that share a common item master in the US and UK. Your financial services organization provides funding to your customers for the initial costs of these applications.

Analysis

The following are elements you must consider in creating your model for your global enterprise structure.

- Your company is required to report using US Generally Accepted Accounting Principles (GAAP) standards and UK Statements of Standard Accounting Practice and Financial Reporting Standards. How many ledgers do you want to achieve proper statutory reporting?
- Your managers need reports that show profit and loss (revenue and expenses) for their lines of business. Do you use business units and balancing segments to represent your divisions and businesses? Do you secure data by two segments in your chart of accounts which represents each department and legal entity? Or do you use one segment that represents both to produce useful, but confidential management reports?
- Your corporate management requires reports showing total organizational performance with drill-down capability to the supporting details. Do you need multiple balancing segment hierarchies to achieve proper rollup of balances for reporting requirements?
- Your company has all administrative, account payables, procurement, and Human Resources functions performed at their corporate headquarters. Do you need one or more business units in which to perform all these functions? How is your shared service center configured?

Global Enterprise Structure Model

The following figure and table summarize the model that your committee has designed and uses numeric values to provide a sample representation of your structure. The model includes the following recommendations:

- Creation of three separate ledgers representing your separate legal entities:
  - InFusion America Inc.
  - InFusion Financial Services Inc.
  - InFusion UK Services Ltd.

- Consolidation of results for application components, installations, and maintenance product lines across the enterprise
- All UK general and administrative costs processed at the UK headquarters
- US Systems' general and administrative costs processed at US Corporate headquarters
- US Financial Services maintains its own payables and receivables departments

Real World Entity	Entity Name	Enterprise	Legal Entity	BSV	Ledger	BU	Cost Center	Dept	Item Master Org	Inventory Org
Enterprise	InFusion Group	●								
Company	US LE 1		●	○	○					
Company	US LE 2		●	○	○					
Company	US LE 3		●	○	○					
Company	UK LE 4		●	○	○					
Business Unit	US Systems BU 1					●				
Business Unit	FIN Services BU 2					●				
Business Unit	UK Systems BU 3					●				
Division	InFusion UK			○			○			
Division	InFusion US			○			○			
Headquarters	BU 4					●				
Shared Service Center	BU 4					●				
Department	AP Department						○	●		
List of Items	Common Item Master								○	
Distribution Center	US Distribution Center									○
Distribution Center	UK Distribution Center									○
Warehouse	US Warehouse West									○
Warehouse	US Warehouse East									○
Warehouse	UK Warehouse									○
BSV = Balancing Segment Value										
BU = Business Unit										
Dept = Department										
Org = Organization										
● = Mandatory Setup										
○ = Optional Setup										

In this chart, the green globe stands for required and gold globe stands for optional setup. The following statements expand on the data in the chart.

- The enterprise is required because it serves as an umbrella for the entire implementation. All organizations are created within an enterprise.
- Legal entities are also required. They can be optionally mapped to balancing segment values or represented by ledgers. Mapping balancing segment values to legal entities is required if you plan to use the intercompany functionality. The InFusion Corporation is a legal entity but is not discussed in this example.
- At least one ledger is required in an implementation in which you record your accounting transactions.
- Business units are also required because financial transactions are processed in business units.
- A shared service center is optional, but if used, must be a business unit.
- Divisions are optional and can be represented with a hierarchy of cost centers or by a second balancing segment value.
- Departments are required because they track your employees.
- Optionally, add an item master organization and inventory organizations if you are tracking your inventory transactions in Oracle Fusion Applications.

Note: Some Oracle Fusion Human Capital Management and Oracle Sales Cloud implementations do not require recording accounting transactions and therefore, do not require a ledger.

Essbase Character and Word Limitations

The following is a comprehensive list of character and word limitations that apply to Essbase. All of the limitations apply to all of the Oracle Fusion General Ledger configurations summarized in the table.

Oracle Fusion General Ledger Configuration	Maps to Essbase
Chart of Account Name	Cube Name
Chart of Account Segment Name	Dimension Name
Chart of Accounts Segment Value	Dimension Member Name
Chart of Accounts Segment Value Description	Alias for Member
Tree and Tree Version Name	Dimension Member Name
Primary Ledger Name	Dimension Member Name in Ledger Dimension
Secondary Ledger Name	Dimension Member Name in Ledger Dimension
Reporting Currency Name	Dimension Member Name in Ledger Dimension
Ledger Set Name	Dimension Member Name in Ledger Dimension
Accounting Calendar Period Names	Dimension Member Name in Accounting Period Name
Scenario Name Defined in Predefined Value Set Called Accounting Scenario	Dimension Member Name in Scenario Dimension

Even if case sensitivity is enabled in an aggregate storage outline for which duplicate member names is enabled, do not use matching dimension names with only case differences. For example, do not:

- Name two dimensions Product and product.
- Use quotation marks or brackets.
- Use tabs in dimension, member, or alias names.
- Use accent characters.
- Use the characters for dimension or member names.

Restricted Characters

The following is a list of characters that are restricted and cannot be used at the beginning of dimension, member, or alias names.

Character	Meaning
@	at sign
\	backslash
,	comma
-	dash, hyphen, or minus sign For the accounting calendar period names, you can use a hyphen or an underscore in the middle of an accounting calendar period name. For example: Jan-15 or Adj_Dec-15 can be used successfully.
=	equal sign
<	less than sign
()	parentheses
.	period
+	plus sign
'	single quotation mark
_	underscore For the accounting calendar period names, you can use a hyphen or an underscore in the middle of an accounting calendar period name. For example: Jan-15 or Adj_Dec-15 can be used successfully.
|	vertical bar

Other Restrictions

- Don't place spaces at the beginning or end of names. Essbase ignores such spaces.
- Don't use these types of words as dimension or member names:
  - Calculation script commands, operators, and keywords.

- Report writer commands.
- Function names and function arguments.
- Names of other dimensions and members (unless the member is shared).
- Generation names, level names, and aliases in the database.
- Any of these words in the table below:

List 1	List 2	List 3
ALL	AND	ASSIGN
AVERAGE	CALC	CALCMBR
COPYFORWARD	CROSSDIM	CURMBRNAME
DIM	DIMNAME	DIV
DYNAMIC	EMPTYPARM	EQ
EQOP	EXCEPT	EXP
EXPERROR	FLOAT	FUNCTION
GE	GEN	GENRANGE
GROUP	GT	ID
IDERROR	INTEGER	LE
LEVELRANGE	LOOPBLOCK	LOOPPARMS
LT	MBR	MBRNAME
MBRONLY	MINUS	MISSING, #MISSING
MUL	MULOP	NE
NON	NONINPUT	NOT
OR	PAREN	PARENPARM
PERCENT	PLUS	RELOP
SET	SKIPBOTH	SKIPMISSING
SKIPNONE	SKIPZERO	TO

List 1	List 2	List 3
TOLOCALRATE	TRAILMISSING	TRAILSUM
UMINUS	UPPER	VARORXMBR
XMRONLY	$$$UNIVERSE$$$	#MI

Define Initial Configuration

Establishing Enterprise Structures Using the Enterprise Structures Configurator: Explained

The Enterprise Structures Configurator is an interview-based tool that guides you through the process of setting up a basic enterprise structure. By answering questions about your enterprise, the tool creates a structure of divisions, legal entities, business units, and reference data sets that reflects your enterprise structure. After you create your enterprise structure, you also follow a guided process to determine whether to use positions, and whether to set up additional attributes for jobs and positions. After you define your enterprise structure and your job and position structures, you can review them, make any necessary changes, and then load the final configuration.

This figure illustrates the process to configure your enterprise using the Enterprise Structures Configurator.

To be able to use the Enterprise Structures Configurator, you must select the Enterprise Structures Guided Flow feature for your offerings on the Configure Offerings page in the Setup and Maintenance work area. If you don't select this feature, then you must set up your enterprise structure using individual tasks provided elsewhere in the offerings, and you can't create multiple configurations to compare different scenarios.

Establish Enterprise Structures

To define your enterprise structures, use the guided flow within the Establish Enterprise Structures task to enter basic information about your enterprise, such as the primary industry. You then create divisions, legal entities, business units, and reference data sets. The Establish Enterprise Structures task enables you to create multiple enterprise configurations so that you can compare different scenarios. Until you load a configuration, you can continue to create and edit multiple configurations until you arrive at one that best suits your enterprise.

Establish Job and Position Structures

You also use a guided process to determine whether you want to use jobs only, or jobs and positions. The primary industry that you select in the Establish Enterprise Structures task provides the application with enough information to make an initial recommendation. You can either accept the recommendation, or you can answer additional questions about how you

manage people in your enterprise, and then make a selection. After you select whether to use jobs or positions, you are prompted to set up a descriptive flexfield structure for jobs, and for positions if applicable. Descriptive flexfields enable you to get more information when you create jobs and positions.

Review Configuration

You can view a result of the interview process prior to loading the configuration. The review results, show the divisions, legal entities, business units, reference data sets, and the management reporting structure that the application will create when you load the configuration.

Load Configuration

You can load only one configuration. When you load a configuration, the application creates the divisions, legal entities, business units, and so on. After you load the configuration, you then use individual tasks to edit, add, and delete enterprise structures.

Rolling Back an Enterprise Structure Configuration: Explained

The Enterprise Structures Configurator (ESC) provides the ability to roll back an enterprise configuration in the following circumstances:

Roll Back a Configuration Manually

You can manually roll back an enterprise configuration after loading it, for example, because you decide you do not want to use it. Clicking the Roll Back Configuration button on the Manage Enterprise Configuration page rolls back any enterprise structures that were created as a part of loading the configuration.

Roll Back a Configuration Automatically

If an error occurs during the process of loading the configuration, then the application automatically rolls back any enterprise structures that were created before the error was encountered.

Designing an Enterprise Configuration: Example

This example illustrates how to set up an enterprise based on a global company operating mainly in the US and the UK with a single primary industry.

Scenario

InFusion Corporation is a multinational enterprise in the high technology industry with product lines that include all the components that are required to build and maintain air quality monitoring systems for homes and businesses. Its primary locations are in the US and the UK, but it has smaller outlets in France, Saudi Arabia, and the United Arab Emirates (UAE).

Enterprise Details

In the US, InFusion employs 400 people and has company revenue of 120 million US dollars.. Outside the US, InFusion employs 200 people and has revenue of 60 million US dollars.

Analysis

InFusion requires three divisions.

- The US division covers the US locations.
- The Europe division covers UK and France.
- Saudi Arabia and the UAE are covered by the Middle East division.

InFusion requires legal entities with legal employers, payroll statutory units, tax reporting units, and legislative data groups for the US, UK, France, Saudi Arabia, and UAE, to employ and pay its workers in those countries.

InFusion requires a number of departments across the enterprise for each area of business, such as sales and marketing, and a number of cost centers to track and report on the costs of those departments.

InFusion has general managers responsible for business units within each country. Those business units may share reference data. Some reference data can be defined within a reference data set that multiple business units may subscribe to. Business units are also required for financial purposes. Financial transactions are always processed within a business unit.

Resulting Enterprise Configuration

Based on this analysis, InFusion requires an enterprise with multiple divisions, ledgers, legal employers, payroll statutory units, tax reporting units, legislative data groups, departments, cost centers, and business units.

This figure illustrates the enterprise configuration that results from the analysis of InFusion Corporation.

Divisions: Explained

Managing multiple businesses requires that you segregate them by their strategic objectives and measure their results.

Responsibility to reach objectives can be delegated along the management structure. Although related to your legal structure, the business organizational hierarchies do not reflect directly the legal structure of the enterprise. The management entities and structure can include:

- Divisions and subdivisions
- Lines of business
- Other strategic business units
- Their own revenue and cost centers

These organizations can be included in many alternative hierarchies and used for reporting, as long as they have representation in the chart of accounts.

Divisions

A division refers to a business-oriented subdivision within an enterprise, in which each division organizes itself differently to deliver products and services or address different markets. A division can operate in one or more countries, and can be many companies or parts of different companies that are represented by business units.

A division is a profit center or grouping of profit and cost centers, where the division manager is responsible for achieving business goals including profits. A division can be responsible for a share of the company's existing product lines or for a separate business. Managers of divisions may also have return on investment goals requiring tracking of the assets and liabilities of the division. The division manager generally reports to a top corporate executive.

By definition a division can be represented in the chart of accounts. Companies can use product lines, brands, or geographies as their divisions: their choice represents the primary organizing principle of the enterprise. This may coincide with the management segment used in segment reporting.

Oracle Fusion Applications supports a qualified management segment and recommends that you use this segment to represent your hierarchy of business units and divisions. If managers of divisions have return on investment goals, make the management segment a balancing segment. Oracle Fusion applications permit up to three balancing segments. The values of the management segment can be business units that roll up in a hierarchy to report by division.

Historically, divisions were implemented as a node in a hierarchy of segment values. For example, Oracle E-Business Suite has only one balancing segment, and often the division and legal entity are combined into a single segment where each value stands for both division and legal entity.

Use of Divisions in Oracle Fusion Human Capital Management (HCM)

Divisions are used in HCM to define the management organization hierarchy, using the generic organization hierarchy. This hierarchy can be used to create organization-based security profiles.

Legal Entities: Explained

A legal entity is a recognized party with rights and responsibilities given by legislation.

Legal entities have the following rights and responsibilities to:

- Own property
- Trade
- Repay debt
- Account for themselves to regulators, taxation authorities, and owners according to rules specified in the relevant legislation

Their rights and responsibilities may be enforced through the judicial system. Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, expenses and income, pay transaction taxes, or perform intercompany trading.

A legal entity has responsibility for elements of your enterprise for the following reasons:

- Facilitating local compliance
- Minimizing the enterprise's tax liability
- Preparing for acquisitions or disposals of parts of the enterprise
- Isolating one area of the business from risks in another area. For example, your enterprise develops property and also leases properties. You could operate the property development business as a separate legal entity to limit risk to your leasing business.

The Role of Your Legal Entities

In configuring your enterprise structure in Oracle Fusion Applications, the contracting party on any transaction is always the legal entity. Individual legal entities:

- Own the assets of the enterprise
- Record sales and pay taxes on those sales
- Make purchases and incur expenses
- Perform other transactions

Legal entities must comply with the regulations of jurisdictions, in which they register. Europe now allows for companies to register in one member country and do business in all member countries, and the US allows for companies to register in one state and do business in all states. To support local reporting requirements, legal reporting units are created and registered.

You are required to publish specific and periodic disclosures of your legal entities' operations based on different jurisdictions' requirements. Certain annual or more frequent accounting reports are referred to as statutory or external reporting. These reports must be filed with specified national and regulatory authorities. For example, in the United States (US), your publicly owned entities (corporations) are required to file quarterly and annual reports, as well as other periodic reports, with the Securities and Exchange Commission (SEC), which enforces statutory reporting requirements for public corporations.

Individual entities privately held or held by public companies do not have to file separately. In other countries, your individual entities do have to file in their own name, as well as at the public group level. Disclosure requirements are diverse. For example, your local entities may have to file locally to comply with local regulations in a local currency, as well as being included in your enterprise's reporting requirements in different currency.

A legal entity can represent all or part of your enterprise's management framework. For example, if you operate in a large country such as the United Kingdom or Germany, you might incorporate each division in the country as a separate legal entity. In a smaller country, for example Austria, you might use a single legal entity to host all of your business operations across divisions.

Creating Legal Entities in the Enterprise Structures Configurator: Points to Consider

Use the Enterprise Structures Configurator (ESC), to create legal entities for your enterprise automatically, based on the countries in which divisions of your business operate, or you can upload a list of legal entities from a spreadsheet.

Automatically Creating Legal Entities

If you are not certain of the number of legal entities that you need, you can create them automatically. To use this option, you first identify all of the countries in which your enterprise operates. The application opens the Map Divisions by Country page, which contains a matrix of the countries that you identified, your enterprise, and the divisions that you created. You select the check boxes where your enterprise and divisions intersect with the countries to identify the legal entities that you want the application to create. The enterprise is included for situations where your enterprise operates in a country, acts on behalf of several divisions within the enterprise, and is a legal employer in a country. If you select the enterprise for a country, the application creates a country holding company.

The application automatically creates the legal entities that you select, and identifies them as payroll statutory units and legal employers. For each country that you indicated that your enterprise operates in, and for each country that you created a location for, the application also automatically creates a legislative data group.

Any legal entities that you create automatically cannot be deleted from the Create Legal Entities page within the Enterprise Structures Configurator. You must return to the Map Divisions by Country page and deselect the legal entities that you no longer want.

Example: Creating Legal Entities Automatically

InFusion Corporation is using the ESC to set up its enterprise structure. The corporation has identified two divisions, one for Lighting, and one for Security. The Lighting division operates in Japan and the US, and the Security division operates in the UK and India.

This figure illustrates InFusion Corporation's enterprise structure.

This table represents the selections that InFusion Corporation makes when specifying which legal entities to create on the Map Divisions by Country page.

Country	Enterprise	InFusion Lighting	InFusion Security
Japan	No	Yes	No
US	No	Yes	No

Country	Enterprise	InFusion Lighting	InFusion Security
UK	No	No	Yes
India	No	No	Yes

Based on the selections made in the preceding table, the ESC creates the following four legal entities:

- InFusion Lighting Japan LE
- InFusion Lighting US LE
- InFusion Security UK LE
- InFusion Security India LE

Creating Legal Entities Using a Spreadsheet

If you have a list of legal entities already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, then add your legal entity information to the spreadsheet, and then upload directly to your enterprise configuration. You can export and import the spreadsheet multiple times to accommodate revisions.

Related Topics

- What's an ultimate holding company?
- Using Desktop Integrated Excel Workbooks: Points to Consider

Legal Entity in Oracle Fusion: Points to Consider

Oracle Fusion Applications support the modeling of your legal entities. If you make purchases from or sell to other legal entities, define these other legal entities in your customer and supplier registers. These registers are part of the Oracle Fusion Trading Community Architecture.

When your legal entities are trading with each other, represent them as legal entities and as customers and suppliers in your customer and supplier registers. Use legal entity relationships to determine which transactions are intercompany and require intercompany accounting. Your legal entities can be identified as legal employers and therefore, are available for use in Human Capital Management (HCM) applications.

Several decisions you should consider when you create legal entities.

- The importance of using legal entity on transactions
- Legal entity and its relationship to business units
- Legal entity and its relationship to divisions
- Legal entity and its relationship to ledgers
- Legal entity and its relationship to balancing segments
- Legal entity and its relationship to consolidation rules
- Legal entity and its relationship to intercompany transactions
- Legal entity and its relationship to worker assignments and legal employer
- Legal entity and payroll reporting
- Legal reporting units

The Importance of Using Legal Entities on Transactions

All of the assets of the enterprise are owned by individual legal entities. Oracle Fusion Financials allow your users to enter legal entities on transactions that represent a movement in value or obligation.

For example, a sales order creates an obligation on the legal entity that books the order to deliver the goods on the acknowledged date. The creation also creates an obligation on the purchaser to receive and pay for those goods. Under contract law in most countries, damages can be sought for both:

- Actual losses, putting the injured party in the same state as if they had not entered into the contract.
- What is called loss of bargain, or the profit that would have made on a transaction.

In another example, if you revalued your inventory in a warehouse to account for raw material price increases, the revaluation and revaluation reserves must be reflected in your legal entity's accounts. In Oracle Fusion Applications, your inventory within an inventory organization is managed by a single business unit and belongs to one legal entity.

Legal Entity and Its Relationship to Business Units

A business unit can process transactions on behalf of many legal entities. Frequently, a business unit is part of a single legal entity. In most cases, the legal entity is explicit on your transactions. For example, a payables invoice has an explicit legal entity field. Your accounts payables department can process supplier invoices on behalf of one or many business units.

In some cases, your legal entity is inferred from your business unit that is processing the transaction. For example, Business Unit ACM UK has a default legal entity of InFusion UK Ltd. When a purchase order is placed in ACM UK, the legal entity InFusion UK Ltd is legally obligated to the supplier. Oracle Fusion Procurement, Oracle Fusion Project Portfolio Management, and Oracle Fusion Supply Chain applications rely on deriving the legal entity information from the business unit.<

Legal Entity and Its Relationship to Divisions

The division is an area of management responsibility that can correspond to a collection of legal entities. If wanted, you can aggregate the results for your divisions by legal entity or by combining parts of other legal entities. Define date-effective hierarchies for your cost center or legal entity segment in your chart of accounts to facilitate the aggregation and reporting by division. Divisions and legal entities are independent concepts.

Legal Entity and Its Relationship to Ledgers

One of your major responsibilities is to file financial statements for your legal entities. Map legal entities to specific ledgers using the Oracle Fusion General Ledger Accounting Configuration Manager. Within a ledger, you can optionally map a legal entity to one or more balancing segment values.

Legal Entity and Its Relationship to Balancing Segments

Oracle Fusion General Ledger supports up to three balancing segments. Best practices recommend one segment represents your legal entity to ease your requirement to account for your operations to regulatory agencies, tax authorities, and investors. Accounting for your operations means you must produce a balanced trial balance sheet by legal entity. If you account for many legal entities in a single ledger, you must:

1. Identify the legal entities within the ledger.
2. Balance transactions that cross legal entity boundaries through intercompany transactions.
3. Decide which balancing segments correspond to each legal entity and assign them in Oracle Fusion General Ledger Accounting Configuration Manager. Once you assign one balancing segment value in a ledger, then all your balancing segment values must be assigned. This recommended best practice facilitates reporting on assets, liabilities, and income by legal entity.

Represent your legal entities by at least one balancing segment value. You may represent it by two or three balancing segment values if more granular reporting is required. For example, if your legal entity operates in multiple jurisdictions in Europe, you might define balancing segment values and map them to legal reporting units. You can represent a legal entity

with more than one balancing segment value. Do not use a single balancing segment value to represent more than one legal entity.

In Oracle Fusion General Ledger, there are three balancing segments. You can use separate balancing segments to represent your divisions or strategic business units to enable management reporting at the balance sheet level for each. This solution is used to empower your business unit and divisional managers to track and assume responsibility for their asset utilization or return on investment. Using multiple balancing segments is also useful when you know at the time of implementation that you are disposing of a part of a legal entity and want to isolate the assets and liabilities for that entity.

Implementing multiple balancing segments requires every journal entry that is not balanced by division or business unit, to generate balancing lines. You cannot change to multiple balancing segments after you begin using the ledger because your historical data is not balanced by the new balancing segments. Restating historical data must be done at that point.

If your enterprise regularly spins off businesses or holds managers accountable for utilization of assets, identify the business with a balancing segment value. If you account for each legal entity in a separate ledger, no requirement exists to identify the legal entity with a balancing segment value.

While transactions that cross balancing segments don't necessarily cross legal entity boundaries, all transactions that cross legal entity boundaries must cross balancing segments. If you make an acquisition or are preparing to dispose of a portion of your enterprise, you may want to account for that part of the enterprise in its own balancing segment even if the portion is not a separate legal entity. If you do not map legal entities sharing the same ledger to balancing segments, you cannot distinguish them using intercompany functionality or track individual equity.

Legal Entity and Its Relationship to Consolidation Rules

In Oracle Fusion Applications you can map legal entities to balancing segments and then define consolidation rules using your balancing segments. You are creating a relationship between the definition of your legal entities and their role in your consolidation.

Legal Entity and Its Relationship to Intercompany Transactions

Use Oracle Fusion Intercompany feature to create intercompany entries automatically across your balancing segments. Intercompany processing updates legal ownership within the enterprise's groups of legal entities. Invoices or journals are created as needed. To limit the number of trading pairs for your enterprise, set up intercompany organizations and assign then to your authorized legal entities. Define processing options and intercompany accounts to use when creating intercompany transactions and to assist in consolidation elimination entries. These accounts are derived and automatically entered on your intercompany transactions based on legal entities assigned to your intercompany organizations.

Intracompany trading, in which legal ownership isn't changed but other organizational responsibilities are, is also supported. For example, you can track assets and liabilities that move between your departments within your legal entities by creating departmental level intercompany organizations.

> **Tip:** In the Oracle Fusion Supply Chain applications, you can model intercompany relationships using business units, from which legal entities are derived.

Legal Entity and Its Relationship to Worker Assignments and Legal Employer

Legal entities that employ people are called legal employers in the Oracle Fusion Legal Entity Configurator. You must enter legal employers on worker assignments in Oracle Fusion HCM.

Legal Entity and Payroll Reporting

Your legal entities are required to pay payroll tax and social insurance such as social security on your payroll. In Oracle Fusion Applications, you can register payroll statutory units to pay and report on payroll tax and social insurance for your legal entities. As the legal employer, you might be required to pay payroll tax, not only at the national level, but also at the local

level. You meet this obligation by establishing your legal entity as a place of work within the jurisdiction of a local authority. Set up legal reporting units to represent the part of your enterprise with a specific legal reporting obligation. You can also mark these legal reporting units as tax reporting units, if the legal entity must pay taxes as a result of establishing a place of business within the jurisdiction.

Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it has a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy.

In Oracle Fusion Applications you do the following:

- Assign your business units to one primary ledger. For example, if a business unit is processing payables invoices, then it must post to a particular ledger. This assignment is required for your business units with business functions that produce financial transactions.
- Use a business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, then secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model provides the following advantages:

- Enables flexible implementation
- Provides consistent entity that controls and reports on transactions
- Shares sets of reference data across applications

Business units process transactions using reference data sets that reflect your business rules and policies and can differ from country to country. With Oracle Fusion Application functionality, you can share reference data, such as payment terms and transaction types, across business units, or you can have each business unit manage its own set depending on the level at which you want to enforce common policies.

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your legal entities to ensure the uniqueness of sequencing.

In summary, use business units for:

- Management reporting
- Transaction processing
- Transactional data security
- Reference data sharing and definition

Brief Overview of Business Unit Security

A number of Oracle Fusion Applications use business units to implement data security. You assign roles like Accounts Payable Manager to users to permit them to perform specific functions, and you assign business units for each role to users to give them access to data in those business units. For example, users which have been assigned a Payables role for a particular business unit, can perform the function of payables invoicing on the data in that business unit. Roles can be assigned to users manually using the Security Console, or automatically using provisioning rules. Business Units can be assigned to users using the Manage Data Access for Users task in Setup and Maintenance.

Creating Business Units in the Enterprise Structures Configurator: Points to Consider

Business units are used within Oracle Fusion applications for management reporting, processing of transactions, and security of transactional data. Using the Enterprise Structures Configurator (ESC), you create business units for your enterprise either automatically or manually.

Automatically Creating Business Units

To create business units automatically, you must specify the level at which to create business units. Business units within your enterprise may be represented at one of two levels:

- Business function level, such as Sales, Consulting, Product Development, and so on.
- A more detailed level, where a business unit exists for each combination of countries in which you operate and the functions in those countries.

You can automatically create business units at the following levels:

- Country
- Country and Division
- Country and business function
- Division
- Division and legal entity
- Division and business function
- Business function
- Legal entity
- Business function and legal entity

Select the option that best meets your business requirements, but consider the following:

- If you use Oracle Fusion Financials, the legal entity option is recommended because of the manner in which financial transactions are processed.
- The business unit level that you select determines how the application automatically creates reference data sets.

After you select a business unit level, the application generates a list of business units, and you select the ones you want the application to create. If you select a level that has two components, such as country and division, then the application displays a table listing both components. You select the check boxes at the intersections of the two components.

The business units listed by the application are suggestions only, and are meant to simplify the process to create business units. You aren't required to select all of the business units suggested. When you navigate to the next page in the ESC guided flow, the Manage Business Units page, you can't delete any of the business units created automatically. You must return to the Create Business Units page and deselect any business units that you no longer want.

Example: Selecting Business Unit Levels

InFusion Corporation is using the Enterprise Structures Configurator to set up its enterprise structure. InFusion has identified two divisions, one for Lighting, and one for Security. They operate in four countries: US, UK, Japan, and India, and they have created a legal entity for each of the countries. The sales and marketing functions are based in both India and Japan, while the US and the UK have only the sales function.

This figure illustrates InFusion Corporation's enterprise structure.

The following table lists the options for business unit levels and the resulting business units that the application suggests for InFusion Corporation.

Business Unit Level	Suggested Business Units
Country	• US • UK • Japan • India
Country and Division	• InFusion Lighting: Japan • InFusion Lighting: US • Infusion Security: UK • Infusion Security: India
Country and business function	• Sales: Japan • Marketing: Japan • Sales: US • Sales: UK • Marketing: India • Sales: India
Division	• InFusion Lighting • InFusion Security
Division and Legal Entity	• InFusion Lighting: Japan • InFusion Lighting: US • Infusion Security: UK

Business Unit Level	Suggested Business Units
	• Infusion Security: India
Division and Business Function	• InFusion Lighting, Sales • InFusion Lighting, Marketing • InFusion Security, Sales • InFusion Security, Marketing
Business Function	• Sales • Marketing
Legal Entity	• Legal Entity: Japan • Legal Entity: US • Legal Entity: UK • Legal Entity India
Legal Entity and Business Function	• Legal Entity: Japan, Sales • Legal Entity: Japan, Marketing • Legal Entity: US, Sales • Legal Entity: UK, Sales • Legal Entity India, Marketing • Legal Entity India, Sales

Manually Creating Business Units

If none of the levels for creating business units meets your business needs, you can create business units manually, and you create them on the Manage Business Units page. If you create business units manually, then no reference data sets are created automatically. You must create them manually as well.

Related Topics

- What reference data objects can be shared across asset books?

Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses. As a result, there is a reduction in the administrative burden and the time to implement new business units. For example, you can share sales methods, or transaction types across business units. You may also share certain other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set affect all business units or application components using that set. You can assign a separate set to each business unit for the type of object that is being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can determine that certain aspects of your corporate policy can affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This allows your enterprise to balance autonomy

and control for each business unit. For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. In such a case, you can let managers define their own sales methods, but define payment terms centrally. In this example:

- Each business unit has its own reference data set for sales methods.
- One central reference data set for payment terms is assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly set up data for this entity component. You can establish other business unit reference data in a business unit-specific reference data set as needed.

Reference Data Sharing Methods

Variations exist in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. This method is the simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. This method is the most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units. You need not explicitly assign the transaction types to each business unit. In addition, you can assign a business unit-specific set of transaction types. At transaction entry, the list of values for transaction types includes the following:
    - Transaction types from the set assigned to the business unit.
    - Transaction types assigned to the common set that is shared across all business units.
- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but assign Net 15 to a set specific only to your business unit. At transaction entry, the list of values for payment terms consists of only the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

Related Topics

- What reference data objects can be shared across asset books?

Business Units and Reference Data Sets: How They Work Together

Reference data sharing enables you to group set-enabled reference data such as jobs or grades to share the data across different parts of the organization. Sets also enable you to filter reference data at the transaction level so that only data assigned to certain sets is available to be selected. To filter reference data, Oracle Fusion Human Capital Management (HCM), applications use the business unit on the transaction. To set up reference data sharing in Oracle Fusion HCM, you create business units and sets, and then assign the sets to the business units.

Common Set Versus Specific Sets

Some reference data in your organization may be considered global, and should therefore be made available for use within the entire enterprise. You can assign this type of data to the Common Set, which is a predefined set. Regardless of the business unit on a transaction, reference data assigned to the Common Set is always available, in addition to the reference data assigned to the set that corresponds to the business unit on the transaction.

Other types of reference data can be specific to certain business units, so you can restrict the use of the data to those business units. In this case, you can create sets specifically for this type of data, and assign the sets to the business units.

Business Unit Set Assignment

When you assign reference data sets to business units, you assign a default reference data set to use for all reference data types for that business unit. You can override the set assignment for one or more data types.

Example: Assigning Sets to Business Units

InFusion Corporation has two divisions: Lighting and Security, and the divisions each have two locations. Each location has one or more business functions.

The following figure illustrates the structure of InFusion Corporation.

When deciding how to create business units, InFusion decides to create them using the country and business function level. Therefore, they created the following business units:

- Sales_Japan
- Marketing_Japan
- Sales_US
- Sales_UK
- Marketing_India

- Sales_India

Because locations, departments, and grades are specific to each business unit, InFusion does not want to share these types of reference data across business units. They create a reference data set for each business unit so that data of those types can be set up separately. Because the jobs in the Sales business function are the same across many locations, InFusion decides to create one additional set called Jobs. They override the set assignment for the Jobs reference data group and assign it to the Jobs set. Based on these requirements, they create the following sets:

- Sales_Japan_Set
- Mktg_Japan_Set
- Sales_US_Set
- Sales_UK_Set
- Mktg_India_Set
- Sales_India_Set
- Grades_Set

InFusion assigns business units to sets as follows:

Business Unit	Default Set Assignment	Set Assignment Overrides
Sales_Japan	Sales_ Japan_Set for grades, departments, and locations	Jobs set for jobs
Marketing_ Japan	Mktg_Japan_Set for grades, departments, and locations	None
Sales_US	Sales_US_Set for grades, departments, and locations	Jobs set for jobs
Sales_UK	Sales_UK_Set for grades, departments, and locations	Jobs set for jobs
Marketing_ India	Mktg_India_Set for grades, departments, and locations	None
Sales_India	Sales_ India_Set for grades, departments, and locations	Jobs set for jobs

When setting up grades, departments, and locations for the business units, InFusion assigns the data to the default set for each business unit. When setting up jobs, they assign the Jobs set and assign the Common Set to any jobs that may be used throughout the entire organization.

When using grades, departments, and locations at the transaction level, users can select data from the set that corresponds to the business unit they enter on the transaction, and any data assigned to the Common Set. For example, for transactions for the Marketing_Japan business unit, grades, locations, and departments from the Mktg_Japan_Set is available to select, as well as from the Common Set.

When using jobs at the transaction level, users can select jobs from the Jobs set and from the Common Set when they enter a sales business unit on the transaction. For example, when a manager hires an employee for the Sales_India business unit, the list of jobs is filtered to show jobs from the Jobs and Common sets.

The following figure illustrates what sets of jobs can be accessed when a manager creates an assignment for a worker.

Creating Reference Data Sets in the Enterprise Structures Configurator: Explained

If you created business units automatically, then the Enterprise Structures Configurator automatically creates reference data sets for you. The Enterprise Structures Configurator creates one reference data set for each business unit. You can add additional sets, but you cannot delete any of the sets that were created automatically.

A standard set called the Enterprise set is predefined.

Common Set

The Common set is a predefined set that enables you to share reference data across business units. When you select set-enabled data at the transaction level, the list of values includes data in the:

- Common set
- Set associated with the data type for the business unit on the transaction

For example, when you create an assignment, the list of values for grades includes grade in the:

- Common set
- Set that is assigned to grades for the business unit in which you creating the assignment

Job and Position Structures: Explained

Job and position structures identify the descriptive flexfield structure that enables you to specify additional attributes that you want to capture when you define jobs and positions. Job and position attributes provide further detail to make jobs and positions more specific. You also use attributes to define the structure of your jobs and positions. You can specify attributes

at the enterprise level for jobs and positions, at the business unit level for positions, and at the reference data set level for jobs. Job and position structures are optional.

Enterprise-Level Job Attributes

When you define a job, you enter a value for the name of the job. To make job names more specific, set up attributes to identify additional details about the job, such as the nature of the work that is performed or the relative skill level required. If these attributes apply to all jobs within your enterprise, set up enterprise-level job attributes. Standard capabilities mean that you can use the different segments of the name to identify common jobs or job holders for analysis or compensation, or for grouping records in reports, for example, to find all jobs of a specific job type. You should not use attributes with values that change regularly, for example, salary ranges or expense approval levels that change every year.

This figure illustrates how job type and job level provide further details for the HR Application Specialist job.

Enterprise-Level Position Attributes

Position attributes at the enterprise level are similar to those for jobs. Each position that you define identifies a specific role in the enterprise, which you can manage independently of the person in the position. A position belongs to one specific department or organization. The name of each position must be unique. To simplify the process of managing unique names for positions, set up enterprise-level attributes to identify separate components of the position name. For example, you can set up an attribute for position title and one for position number. When defining the attributes that make up the structure of a position name, consider whether any of your attributes are part of the definition of a common job type. Using job types for a position can help you manage common information that applies to many different positions. For example you can define a job type of Manager.Level 1 and use this for comparison of positions across departments or lines or business, or for setting common job requirements. You can then define multiple manager type positions in your HR department, each of which has responsibility for a different management function or group.

This figure illustrates how title and position number provide further details for the manager position.

Business Unit-Level Attributes for Positions

If you have information that you want to capture for positions that is specific to each business unit, then you can define attributes at the business unit level for positions. When you create positions, these attributes appear in addition to any enterprise-level attributes. For example, you may want to identify the sales region for all positions in the sales business unit. You can set up a text attribute called Sales Region and use it to enter the necessary information when creating positions for the sales business unit.

Reference Data Set-Level Attributes for Jobs

If you have information for jobs that applies to specific reference data sets, set up attributes for jobs at the reference data set level. When you create jobs, these attributes appear in addition to any enterprise-level attributes. For example, you may want to identify all information technology (IT) jobs within a specific set. You can set up a text attribute called Function and use it to enter IT in jobs that you create that perform an IT function within a specific set.

FAQs for Define Initial Configuration

What happens if I don't use the Enterprise Structures Configurator to set up my enterprise structures?

The Enterprise Structures Configurator is an interview-based tool that guides you through setting up divisions, legal entities, business units, and reference data sets. If you do not use the Enterprise Structures Configurator, then you must set up your enterprise structure using the individual tasks that correspond to each enterprise component. In addition, you can't set up multiple configurations and compare different scenarios. Using the Enterprise Structures Configurator is the recommended process for setting up your enterprise structures.

What's the default reference data set?

The reference data set that is assigned to a business unit for all reference data groups, such as grades, locations, departments, and jobs. You can override the default reference data set for any reference data group.

What happens if I override the set assignment?

For the selected business unit, you can override the default reference data set for one or more reference data groups. For example, assume you have three reference data groups: Vision 1 SET, Vision 2 SET, and Vision 3 SET, where Vision SET 1 is the default set for business unit United Kingdom Vision 1 BU. You can override the default so that:

- Grades are assigned to Vision 2 SET
- Departments are assigned to Vision 3 SET
- Jobs are assigned to the default set, Vision 3 SET

Define Reference Data Sharing

Reference Data Sharing: Explained

Reference data sharing facilitates sharing of configuration data such as jobs and payment terms, across organizational divisions or business units. You define reference data sets and determine how common data is shared or partitioned across business entities to avoid duplication and reduce maintenance effort. Depending on the requirement (specific or common), each business unit can maintain its data at a central location, using a set of values either specific to it or shared by other business units.

A common reference data set is available as the default set, which can be assigned to several business units sharing the same reference data. For commonly used data such as currencies, you can use the common reference data set and assign it to multiple business units in various countries that use the same currency. In cases where the default set can't be assigned to an entity, you can create specific sets. The data set visible on the transactional page depends on the sharing method used to share reference data.

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of different business units setting up and using the same grades, XYZ Corporation decides to create a set called Grades, which contains the grades. All business units in the organization have the Grades set so that the grades can be shared and used.

Note: For specific information about configuring reference data sharing for a particular object or product, refer to the relevant product documentation.

Reference Data Sets: Explained

Reference data sets are logical groups of reference data that various transactional entities can use depending on the business context. You can get started using either the common reference data set or the enterprise set depending on your implementation requirement. You can also create and maintain custom reference data sets, while continuing to use the common reference data set.

Consider the following scenario. Your enterprise can decide that only some aspects of corporate policy should affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This enables your enterprise to balance autonomy and control for each business unit. For example, your enterprise holds business unit

managers accountable for their profit and loss, but manages working capital requirements at a corporate level. Then, you can let managers define their own sales methods, but define payment terms centrally. As a result, each business unit has its own reference data set for sales methods and one central reference data set for payment terms assigned to all business units.

Partitioning

Partitioning reference data and creating data sets provide you the flexibility to handle the reference data to fulfill your business requirements. You can share modular information and data processing options among business units with ease. You can create separate sets and subsets for each business unit. Alternatively, you can create common sets or subsets to enable sharing reference data between several business units, without duplicating the reference data.

The following figure illustrates the reference data sharing method (assignment to one set only, with common values). The user can access the data assigned to a specific set in a particular business unit, as well as access the data assigned to the common set.

Related Topics

- Defining Default Reference Data Sets: Points to Consider

Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses. As a result, there is a reduction in the administrative burden and the time to implement new business units. For example, you can share sales methods, or transaction types across business units. You may also share certain other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set affect all business units or application components using that set. You can assign a separate set to each business unit for the type of object that is being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can determine that certain aspects of your corporate policy can affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This allows your enterprise to balance autonomy and control for each business unit. For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. In such a case, you can let managers define their own sales methods, but define payment terms centrally. In this example:

- Each business unit has its own reference data set for sales methods.
- One central reference data set for payment terms is assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly set up data for this entity component. You can establish other business unit reference data in a business unit-specific reference data set as needed.

Reference Data Sharing Methods

Variations exist in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. This method is the simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. This method is the most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units. You need not explicitly assign the transaction types to each business unit. In addition, you can assign a business unit-specific set of transaction types. At transaction entry, the list of values for transaction types includes the following:
    - Transaction types from the set assigned to the business unit.
    - Transaction types assigned to the common set that is shared across all business units.
- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but assign Net 15 to a set specific only to your business unit. At transaction entry, the list of values for payment terms consists of only the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

Related Topics

- What reference data objects can be shared across asset books?

Assigning Reference Data Sets to Reference Objects: Points to Consider

You can assign the reference data sets to reference objects using the Manage Reference Data Set Assignments page. For multiple assignments, you can classify different types of reference data sets into groups and assign them to the reference entity objects. The assignment takes into consideration the determinant type, determinant, and reference group, if any.

Determinant Types

The partitioned reference data is shared using a business context setting called the determinant type. A determinant type is the point of reference used in the data assignment process. The following table lists the determinant types used in the reference data assignment.

Type	Description
Asset Book	Information about the acquisition, depreciation, and retirement of an asset that belongs to a ledger or a business unit.
Business Unit	The departments or organizations within an enterprise.
Cost Organization	The organization used for cost accounting and reporting on various inventory and cost centers within an enterprise.
Project Unit	A logical organization within an enterprise that is responsible for enforcing consistent project management practices.
Reference Data Set	References to other shared reference data sets.

Determinant

The determinant (also called determinant value) is a value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set.

Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data). However, all reference entities are treated alike because of similarity in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups. For example, all tables and views that define Sales Order Type details might be a part of the same reference group. Reference groups are predefined in the reference groups table.

Items and Supplier Site Reference Data Sharing: Explained

Some products, such as items and supplier sites, required special logic for reference data sharing and have implemented their own domain-specific ways for sharing data.

Items

If you share your items across warehouses or manufacturing facilities, you can access them through a common item master. Configure one or multiple item masters for your enterprise, based your enterprise structure. A single item master is recommended because it provides simpler and more efficient maintenance. However, in rare cases, it may be beneficial to keep multiple item masters. For example, if you acquire another enterprise and want to continue to operate your lines of business separately, maintaining a second item master might be the best decision.

Suppliers Sites

You can approve particular suppliers to supply specified commodities and authorize your business units to buy from those suppliers when the need arises. For example, you might be a household cleaning products manufacturer and need dyes, plastics, and perfumes to make your products. You purchase from a central supplier 70% of your perfume supplies with an additional supplier, in reserve, from whom you purchase the remaining 30%. At the same time, each of your business units purchases plastics and dyes from the same supplier, but from different local supplier sites to save transportation costs.

To implement business unit-specific supplier sites, Oracle Fusion Procurement supports a method for defining suppliers sites as owned and managed by the business unit responsible for negotiating the supplier terms. Your other business units that have a service provider relationship defined with your procurement business unit subscribe to the supplier sites using the supplier site assignments feature. In addition, Procurement allows sharing of the following procurement data objects across business units:

- Supplier qualification data, such as approved supplier lists
- Catalog content, such as agreements, smart forms, public shopping lists, and content zones
- Procurement configuration data

Related Topics

- What reference data objects can be shared across asset books?

Set Assignments and Project Data: How They Work Together

Reference data set assignments determine how you share enterprise information, including project data, across organizational units. You can decide which data is global, which data can be shared by certain organizations, and which data must remain organization-specific. Reference data sharing enables enterprises to balance autonomy and control for organizations.

Project Portfolio Management applications employ two set determinants: business unit and project unit.

Business Unit as Set Determinant

Business units enable you to control and report on financial transactions, usually for specific geographical entities within the enterprise. For project management purposes, assign the Project Accounting business function to the business unit.

Business unit is a set determinant for the project-related reference data objects described in the following table.

Reference Data Object	Entities
Project Accounting Definition	Project types
Project Rates	Project rate schedules

Reference Data Object	Entities

You assign a default set to each business unit. The **Project Accounting Definition** and **Project Rates** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select project types and rate schedules that are assigned to the same set as the business unit. If you assign a common set to a rate schedule, then that rate schedule is available for use across business units.

Project Unit as Set Determinant

Use project units to enforce consistent project management practices across your enterprise. Project unit is a set determinant for the reference data objects described in the following table.

Reference Data Object	Entities
Project Definition	Class codes, financial plan types, project plan types, and project roles
Project Transaction Types	Expenditure types and work types

You assign a default set to each project unit. The **Project Definition** and **Project Transaction Types** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select class codes, plan types, roles, expenditure types and work types that are assigned to the same set as the project unit. To enable expenditure types and work types for use on projects owned by a project unit, assign the set associated with the Project Transaction Types reference data object to those entities.

Related Topics

- Associating Sets with Financial Plan Types: Example
- Business Units: How They Work with Projects
- Project Units: Explained

Partitioning Project Data Using Set Determinants: Examples

Use business units and project units to independently manage access to financial and project management data based on the unique requirements of your enterprise.

This topic illustrates the following scenarios.

1. Maintaining separate project management methodologies and data across units within an enterprise while centralizing financial management of data
2. Enforcing a single project management methodology across units within an enterprise while partitioning financial data

Note: These examples are only illustrative. Any combination of business units and project units can exist.

Using Multiple Project Units with One Business Unit

Assume that Vision Corporation is a services company with facilities across the United States. Its business is based on research and development activities and consulting practice. Each of the following lines of business use projects:

- Consulting uses projects to manage consulting engagements and provide billing details to contracts.
- Research and Development uses projects to manage design project schedules.
- Real Estate uses projects to manage facilities, including new construction and repairs.

Vision Corporation implemented project units and business units as follows:

- Project Units
  - Consulting
  - Real Estate
  - Research and Development
- Business Unit: Vision Corporation

The default sets assigned to each project unit are described in the following table.

Project Unit	Default Set
Consulting	Consulting Set
Real Estate	Real Estate Set
Research and Development	Research and Development Set

Note: The Project Definition and the Project Transaction Types reference data objects use the default set.

Vision Corporation can maintain independent setup data for each project unit, while sharing a single approach to financial management across all project units. For example, Vision Corporation uses different expenditure types for each project unit, as described in the table below.

Expenditure Type	Sets
Labor	Consulting Set Real Estate Set Research and Development Set
Airfare	Consulting Set
Hotel	Consulting Set
Equipment	Real Estate Set

The Labor expenditure type can be used for projects belonging to any project unit. However, expenditure types for airfare and hotel accommodation are used only on consulting projects.

Using Multiple Business Units with One Project Unit

Assume that Vision Corporation is a services and product development company with research and development facilities across the globe, including in the United States and Canada. Due to its international operations, you create multiple business units to segregate financial data. However, you can create a single project unit because research and development projects are similar across the enterprise. Therefore, you create a single project unit.

The enterprise structure and set assignments are described below.

- Project Unit: Research and Development
- Business Units
  - Vision United States
  - Vision Canada

The default sets assigned to each business unit are described in the following table.

Business Unit	Default Set
Vision United States	US Set
Vision Canada	Canada Set

Vision Corporation maintains independent financial data for each business unit, while employing a unified approach to project management that includes common financial types, project plan types, and project roles. The enterprise must use different resource rates in each country. The following table describes the rate schedule setup for each country.

Rate Schedule Name	Project Rates Set
Enterprise Project Rates: United States	US Set
Enterprise Project Rates: Canada	Canada Set
Common Enterprise Project Rates	Common Set

These set assignments govern how planned and actual amounts are calculated for projects. For example, when Vision Corporation defines organization costing rules for the Vision United States business unit, they can select only the Enterprise Project Rates: United States or the Common Enterprise Project Rates rate schedules.

FAQs for Define Reference Data Sharing

What reference data objects can be shared across business units?

The following list contains the reference data objects for the Oracle Fusion Applications that can be shared across business units and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Trading Community Model	Customer Account Relationship	Assignment to one set only, no common values allowed
Trading Community Model	Customer Account Site	Assignment to one set only, no common values allowed
Trading Community Model	Salesperson	Assignment to one set only, no common values allowed
Opportunity Management	Sales Method Group	Assignment to one set only, with common values
Work Management	Assessment Templates	Assignment to one set only, with common values
Enterprise Contracts	Contract Types	Assignment to one set only, with common values
Sales	Sales Method	Assignment to one set only, with common values
Common Components	Activity Templates	Assignment to one set only, with common values
Payables	Payment Terms	Assignment to multiple sets, no common values allowed
Receivables	Accounting Rules	Assignment to one set only, with common values
Receivables	Aging Buckets	Assignment to one set only, with common values
Receivables	Auto Cash Rules	Assignment to one set only, with common values
Receivables	Collectors	Assignment to one set only, with common values

Application Name	Reference Data Object	Method of Sharing
Receivables	Lockbox	Assignment to one set only, with common values
Receivables	Memo Lines	Assignment to one set only, with common values
Receivables	Payment Terms	Assignment to one set only, with common values
Receivables	Remit To Address	Assignment to one set only, with common values
Receivables	Revenue Contingencies	Assignment to one set only, with common values
Receivables	Transaction Source	Assignment to one set only, with common values
Receivables	Transaction Type	Assignment to one set only, with common values
Advanced Collections	Collections Setups	Assignment to one set only, with common values
Advanced Collections	Dunning Plans	Assignment to one set only, with common values
Tax	Tax Classification Codes	Assignment to multiple sets, no common values allowed
Human Resources	Departments	Assignment to one set only, with common values
Human Resources	Jobs	Assignment to one set only, with common values
Human Resources	Locations	Assignment to one set only, with common values
Human Resources	Grades	Assignment to one set only, with common values
Project Billing	Project and Contract Billing	Assignment to multiple sets, no common values allowed
Project Foundation	Project Accounting Definition	Assignment to one set only, no common values allowed

Application Name	Reference Data Object	Method of Sharing
Project Foundation	Project Rates	Assignment to one set only, with common values
Order Management	Hold Codes	Assignment to one set only, with common values
Order Management	Orchestration Process	Assignment to one set only, with common values

What reference data objects can be shared across cost organizations?

The following list contains the reference data objects for Oracle Fusion Cost Management that can be shared across cost organizations and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Cost Management	Cost Structure	Assignment to one set only, no common values allowed

What reference data objects can be shared across project units?

The following table contains the reference data objects for Oracle Fusion Project Foundation that can be shared across project units and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Project Foundation	Project Definition	Assignment to multiple sets, no common values allowed
Project Foundation	Project Transaction Types	Assignment to multiple sets, no common values allowed

Define Geographies

Geography Structure, Hierarchy, and Validation: How They Fit Together

There are three components that are dependent on each other when defining a country: geography structure, geography hierarchy, and geography validation. Every country has to have the geography structure defined first before the hierarchy can be defined, and the geography hierarchy has to be defined before the validation can be defined.

Geography Structure

Firstly, you need to create a geography structure for each country to define which geography types are part of the country structure, and how the geography types are hierarchically related within the country structure. For example, you can create geography types called State, City, and Postal Code. Then you can rank the State geography type as the highest level within the country, the City as the second level, and the Postal Code as the lowest level within the country structure. Geography structure can be defined using the **Manage Geographies** task, or can be imported using tasks in the **Define Geographies** activity.

Geography Hierarchy

Once the geography structure is defined, the geographies for each geography type can be added to the hierarchy. For example, below the United States you can create a geography called California using a State geography type.

As part of managing the geography hierarchy you can view, create, edit, and delete the geographies for each geography type in the country structure. You can also add a primary and alternate name and code for each geography. A geography hierarchy can be created using the **Manage Geographies** task, or can be imported using tasks in the **Define Geographies** activity.

Geography Validation

After defining the geography hierarchy, you need to specify the geography validations for the country. You can choose which address style formats you would like to use for the country, and for each selected address style format you can map geography types to address attributes. You can also select which geography types should be included in geography or tax validation, and which geography types will display in a list of values during address entry in other user interfaces. The geography validation level for the country, such as error or warning, can also be selected.

Geography Structures: Explained

This topic describes geography structures and the tasks you can perform using geography structures.

A geography structure is a hierarchical grouping of geography types for a country. For example, the geography structure for the United States is as follows:

Level	Geography Type
1	State
2	County
3	City
4	Postal Code

You can use the geography structure to relate geography types for a country and define geography types for a country.

Relate Geography Types for a Country

You can determine how a country's geographies are hierarchically related by creating the hierarchy of the geography types in the geography structure. When you define a country's structure, the geography type Country is implicitly at the top of the geography structure with the level 1. The subsequent geography types that you add after country are numbered in sequence.

You must add a geography type as a level in the country structure before you can define a geography for that geography type in a country. For example, before defining the state of California, the State geography type must be added to the United States country structure. To quickly create country structure, you can copy a structure from another country and modify the geography types for the country.

Define Geography Types for a Country

You can use any of the master reference geography types to create your geography structure. If required, you can create a geography type, before adding it to the country structure. Each geography type is added below the current lowest level.

> **Note:** You cannot delete geography types that have associated geography data. You can only delete the lowest level geography type of the country structure.

A geography type that you create within the country structure can be used for other country structures as well.

Geography Hierarchy: Explained

This topic describes geography hierarchy and various aspects of geography hierarchy.

Geography hierarchy is a data model that creates conceptual parent-child relationships between geographies. The top level of the geography hierarchy is country, which is the parent, and the hierarchy contains several child geographies. The following table shows sample parent-child relationships in a geography.

California	Parent of San Mateo county
San Mateo County	Parent of Redwood City
Redwood City	Parent of 94065
94065	Child

When you enter just 94065, the application determines that the postal code is in California and the corresponding city is Redwood City.

The application uses geography hierarchy information to facilitate business processes that rely on geography information, such as, tax calculation, order sourcing rules, and sales territory definition. The geography hierarchy information is centrally located and shared among other application offerings.

The geography hierarchy includes:

- Geography: Geography is a physical space with boundaries that is a defined instance of a geography type, such as country, state, province or city. For example, San Jose is a geography of the City geography type.
- Geography type: Geography types are divisional grouping of user defined geographies, for example, Continent, Country Regions, and Tax Regions.

- Geography usage: Geography usage indicates how a geography type or geography is used in the application.
- Master reference geography hierarchy: The geography hierarchy data is considered the single source of reference for all geography related data such as geography types and geographies.

  The geography usage for the entire hierarchy is the master reference, and defined geography types and geographies are the master reference geography types and geographies. For example, you can create geography types called State, City, and Postal Code. Then, you can rank the State as the highest level, City as the second level, and Postal Code as the lowest level within the country structure.
- User defined zones: User defined zones are a collection of geographical data, created from master reference data for a specific purpose. For example, while the territory zones are collections of master reference geographies ordered with a hierarchy, the tax and shipping zones are without a hierarchical grouping.

Geography Validation: Explained

Geography validation determines the geography mapping and validation for a country's address styles, as well as the overall geography validation control for a country.

The **No Styles Format** address style format is the default address style format for a country. By defining the mapping and validation for this format you will ensure that validations can be performed for any address in the country. After the **No Styles Format** is defined you can set up additional mapping for specific address styles.

For each address style format, you can define the following:

- Map to attribute
- Enable list of values
- Tax validation
- Geography validation
- Geography validation control

Map to Attribute

For every address style format, you can map each geography type to an address attribute. For example, you can map the **State** geography type to the **State** address attribute for the United States, or map the **State** geography type to the **County** address attribute for the United Kingdom. The geography types that appear are based on how the country structure is defined. The list of address attributes that appear are based on address formats delivered with the application, or your customer defined address formats.

Note: You only need to map geography types that you want to use for geography or tax validation purposes.

Enable List of Values

Once a geography type is mapped to an attribute, then you can specify whether the geography type will appear in a list of values during address entry in user interfaces. It is very important to review carefully if you want to enable a list of values. You should only enable a list of values if you have sufficient geography data imported or created for that geography. If the setup for master geography data is incomplete, then the geography data is either not imported or created. As a result, the list of values for the address attribute does not list any geography data.

Once you have enabled a list of values for an address attribute, you can only select the geography data available for the geography type. This means that if a specific geography value is not available in the geography hierarchy, you cannot create an address with a different geography value.

Tax Validation

You can also specify whether a geography type will be included in tax validation. For example, for the United States North America address style format you specify that County, State, and City are used for tax validation. This will mean that when a transaction involves an address with the North America address style, the address must have the correct county, state, and city combination based on the geography hierarchy data, to be considered valid for tax calculation.

Geography Validation

You can specify whether a geography type will be included in geography validation. This will mean that, for example, when the user enters a United States address using the North America address style format, the address must have the correct country, state, and postal code combination based on geography hierarchy data to be considered geographically valid.

If an address element is mapped to a geography type, but not selected for geography validation usage, then during address entry suggested values will be provided for the address element, but the address element will not be validated.

> **Note:** For either the tax or geography validation, do not skip more than one consecutive level unless you are certain that the selected geography types can uniquely identify geographies. For example, the United States country structure is: State, County, City, and Postal Code, and you want to select just State and Postal Code for geography or tax validation. However, for the combination of California and 94065, the city can be either Redwood Shores or Redwood City. In this case, you should also select at least the City geography type for geography or tax validation.

Geography Validation Control

You can select the geography validation level for a country. Validation will check if the entered address maps to the geography hierarchy data available for the country, and the geography validation control determines whether you can save an address that did not pass validation during address entry. For example, if the validation level is **Error**, then an address cannot be saved if the values do not match the geography hierarchy data.

These are the geography validation levels you can choose:

- **Error** - only completely valid addresses can be saved, with all mandatory address elements entered.
- **No Validation** - all addresses can be saved including incomplete and invalid addresses.

Regardless of the result of validation, the validation process will try to map any address attribute to a geography of the country, and store any mapping it could establish based on the available data. This is called **Geography Name Referencing** and it is executed as part of validation. The result of this referencing is used in several business processes in the application to map an address to a specific geography or zone.

The Geography Dimension value in territories is derived from sell-to addresses of sales accounts. To use geography dimensions in territories, you must validate the geography elements in the addresses, such as state, city, and postal code. You can validate the address by enabling geography validation for each country using the Manage Geographies task. Perform the following in the Manage Geographies task:

- Enable at least one level in the geography hierarchy for geography validation.
- Enable geography validation for all geography levels that you intend to use for territory definition for each country.
- If needed, enable a list of values containing specific geography elements. This will help users search and select appropriate geography values during addresses entry and eliminate all possibilities of wrong address entry.

You can set geography validation control to Error in the Manage Geography Validation page. This ensures that users can only use valid geography elements in addresses.

Note: If you have already created addresses before setting up geography validation for a country, you must enabling geography validation and then execute the Run Maintain Geography Name Referencing task for that country. This validates all your geography elements.

Managing Geography Structures, Hierarchies, and Validation: Worked Example

This example shows how to configure the geography structure, hierarchy, and validation for a country geography, using the United Kingdom country geography as an illustration.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
Copy an existing country structure?	No, create a new country structure.
What is the structure of the geography types?	Create geography types with the following ranking structure: 1. County 2. Post Town
What is the geography hierarchy?	Create the following hierarchy: 1. Country of United Kingdom 2. County of Berkshire 3. Post Town of Reading
Which address style format will you use when mapping geography validations?	The default address style format, called the No Styles Format.
Are you using Oracle Fusion Tax for tax purposes?	No, do not select **Tax Validation** for the geography types.

Defining the Geography Structure

Add the County and Post Town geography types to the United Kingdom geography structure.

1. On the Manage Geographies page, enter GB in the **Code** field. Click **Search**.
2. On the Manage Geographies page, click **Structure Defined**.
3. On the Manage Geography Structure page, click the **Create** button next to the **Copy Country Structure From** field.
4. In the Geography Structure section, select the County list item in the **Add Geography Type** field.
5. Click **Add**.
6. Select the Post Town list item in the **Add Geography Type** field.
7. Click **Add**.

Defining the Geography Hierarchy

To create the geography hierarchy for United Kingdom, add the geographies for the County and Post Town geography types using the geography hierarchy user interfaces. You can also use the Manage File Import Activities task to import geography hierarchies using a .csv or xml file.

1. On the Manage Geographies page, enter GB in the **Code** field. Click **Search**.
2. On the Manage Geographies page, click **Hierarchy Defined**.
3. In the Geography Hierarchy section, click United Kingdom to highlight the table row, and click **Create**.
4. In the **Create County** page, Primary and Alternate Names section, enter Berkshire in the **Name** field.
5. Click **Save and Close**.
6. In the Geography Hierarchy section, click Berkshire to highlight the table row, and click **Create**.
7. In the **Create Post Town** page, Primary and Alternate Names section, enter Reading in the **Name** field.
8. Click Save and Close.

Defining the Geography Validations

To specify the geography validations for the geography types you added to United Kingdom, define the geography mapping and validation for the United Kingdom default address style format. Then, map the geography types to attributes, enable the geography types for Lists of Values and Geography Validation, and set the geography validation level.

1. On the Manage Geographies page, click **Validation Defined**.
2. In the Address Style section, click **No Styles Format** to highlight the table row.
3. For the County geography type, click the **County** list item in the **Map to Attribute** field.
4. Select the **Enable List of Values** and **Geography Validation** options.
5. For the Post Town geography type, click the **City** list item in the **Map to Attribute** field.
6. Select the **Geography Validation** option.
7. In the Geography Validation Control section, select **Error** in the **Geography Validation Level for Country** list.
8. Click **Save and Close**.

Geocoding: Explained

This topic explains geocoding and how to enable this option in the application.

Geocoding is the process of finding latitude and longitude coordinates from geographic data such as street addresses or zip codes. Once these coordinates are available, you can use the spatial services feature to identify points of interest, such as customer and contact addresses, in the vicinity. The application integrates the Geocoding feature with eLocation (http://elocation.oracle.com/maps_oracle_dot_com_main.html), which is a Geocoding service provided by Oracle.

By default, the Geocoding option is turned off in the application. You can enable the Geocoding option in the **Setup and Maintenance, Manage Geographies** page.

If the Geocoding feature is enabled, the feature can be scheduled to run at regular time intervals. This ensures that newly created or updated locations are picked up and geocoded whenever you create or update an address using the user interface, web services, bulk import, or file-based import.

Related Topics

- What are Spatial Services?

Setting Up Geocoding: Procedure

This procedure lists the steps to set up geocoding in Oracle applications.

Geocoding is a process that determines the latitude and longitude coordinates for a location. By default, geocoding is turned off in the application. You can use geocoding to display customers in the vicinity of a mobile address.

Enabling Geocoding for a Country

To enable geocoding for a country, complete these steps:

1. From the Setup and Maintenance work area, search for Manage Geographies and click **Go to Task**.
2. Search the country for which you want to enable geocoding. You can either search by the country name or country code.
3. Click **Search**. The search results for the matching country names are displayed.
4. Select the country for which you want to enable the geocoding option.
5. Select **Geocoding Defined** for the country.

Populating Location Latitude and Longitude Information

Once geocoding is enabled, you can schedule this feature to run at regular time intervals so that newly created or updated locations are picked up and geocoded. To schedule the geocoding feature to run at regular intervals, complete these steps:

1. Navigate to the Scheduled Processes work area, and click **Schedule New Process**.
2. Click the Name drop-down and search for Populate Location Latitude and Longitude Information, and then click **OK**.
3. Enter the parameters such as Start Date and End Date, and click **Submit**.

Importing Geographies: Explained

A geography, such as Tokyo or Peru, describes a boundary on the surface of the earth. You can create new geographies by importing data through interface tables. There are two options for populating the interface tables: using the tool of your preference to load the data or using file-based data import. If you plan to provide the data details in a source file, use the file-based import feature. If you will populate the interface table directly, run the geography loader process to import the data. Having a good understanding of the import entity, interface table, and destination table will help you prepare your import data.

Consider the following when importing geographies:

- Nokia geography reference data
- File-based import option
- Geography loader process option
- Import object entity, interface table, and destination tables

Nokia Geography Reference Data

Oracle Sales Cloud includes third-party (Nokia) master geography data for multiple countries that can be easily imported. You can import Oracle-licensed Nokia data from Navteq, for those countries where the data is available, such as the U.S. You can import Nokia Geography data using the **Manage Geographies** task. Search for the country, and select **Import Nokia Data** from the **Actions** menu. If the licensed Navteq data is not available for a particular country, then the **Import Nokia Data** action is disabled.

File-Based Import Option

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the geography import object, create source file mappings, and schedule the import activities.

Geography Loader Process Option

Populate the interface table with your import data, then navigate to the **Run Geography Loader Setup and Maintenance** task to schedule the import of data from the interface table to the destination table.

Import Object Entity, Interface Table, and Destination Tables

The geography import object consists of one entity and interface table that forms the geography. If you are using file-based import, you can map your source file data to import entity attributes that correspond to the interface table columns. The import activity process populates the interface table based on the mapping and your source file. If using the geography loader scheduled process, populate the interface table directly using your preferred tool. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

The following lists the object entity, tables, and resulting application object:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
ImpGeography	HZ_ IMP_ GEOGRAPHIES_T	HZ_GEOGRAPHIES HZ_ GEOGRAPHY_ IDENTIFIERS HZ_ GEOGRAPHY_ TYPES_B HZ_ HIERARCHY_ NODES	Geography

Nokia Geography Reference Data: Explained

Oracle Sales Cloud includes third-party Nokia master geography data that is available for import for the following countries.

	Country Name	Country Code
1.	Andorra	AD
2.	Argentina	AR
3.	Austria	AT
4.	Belgium	BE
5.	Brazil	BR
6.	Bulgaria	BG

	Country Name	Country Code
7.	Canada	CA
8.	Cayman Island	KY
9.	Chile	CL
10.	Croatia	HR
11.	Czech Republic	CZ
12.	Denmark	DK
13.	Dominican Republic	DO
14.	Estonia	EE
15.	Finland	FI
16.	France	FR
17.	Germany	DE
18.	Greece	GR
19.	Guadeloupe	GP
20.	Hungary	HU
21.	Iceland	IS
22.	India	IN
23.	Indonesia	ID
24.	Ireland	IE
25.	Isle of Man	IM
26.	Israel	IL
27.	Italy	IT
28.	Jamaica	JM

	Country Name	Country Code
29.	Latvia	LV
30.	Liechtenstein	LI
31.	Lithuania	LT
32.	Luxembourg	LU
33.	Malaysia	MY
34.	Malta	MT
35.	Martinique	MQ
36.	Mexico	MX
37.	Netherlands	NL
38.	New Zealand	NZ
39.	Norway	NO
40.	Peru	PE
41.	Poland	PL
42.	Portugal	PT
43.	Puerto Rico	PR
44.	Reunion Island	RE
45.	Romania	RO
46.	Russian Federation (Russia)	RU
47.	San Marino	SM
48.	Slovakia	SK
49.	Slovenia	SI
50.	South Africa	ZA

	Country Name	Country Code
51.	Spain	ES
52.	Swaziland	SZ
53.	Sweden	SE
54.	Switzerland	CH
55.	Taiwan	TW
56.	Turkey	TR
57.	United Kingdom	GB
58.	United States	US
59.	Uruguay	UY
60.	Holy See (Vatican City State)	VA

Replacing Existing Master Geography Data with Revised Nokia Geography Data: Procedure

You must import and set up reference geography data for the countries where you do business. Using the Nokia geography reference data, you no longer have to source geography data from a third party. You can import Oracle-licensed Nokia data from NAVTEQ, including the country structure and hierarchy information, either to create a new geography setup or replace your existing geography data.

This topic describes the steps to replace your existing master geography data with the revised Nokia geography data.

Creating an Export File of All Territories

You must export all territories before deleting the master geography data because removing the master geography data invalidates the territory definitions that are based on the Geography dimension. You can either export the definitions of all territories to a file or make manual corrections. If there are a large number of territories, export the territories definition to a file that can be used during the territories import process. However, if there are very few affected territories, then you can choose to either export the territories definition to a file or make corrections manually.

This procedure is applicable only if there are territories defined using the Geography dimension.

Perform the following steps to create an export file of all territories.

1. From the Territories and Quotas work area, click **View Active Territories** in the Tasks pane.
2. In the View Active Territories page, select the top territory.
3. Click the **Actions** drop-down list, and select **Export**, and then **Export Selected Territory Hierarchy**.
4. In the Warning dialog box, click **OK**.

5. Click the **Actions** drop-down list and select **Export**, and then **View Export** Status.
6. Review the status of the export job and verify if it has completed successfully.
7. In the Exported Data File column, click the .zip file against your export job, and click **Save**. All the territories are exported to a compressed file on your system.
8. Click **OK**.
9. Click **Done** in the View Active Territories page.

Deleting the Territory Geography Data

A territory definition has references to the territory geography data and master geography data. Since territory geography data is based on the master geography data, you must delete the territory geography data prior to deleting the master geography data. When you delete the territory geography data, all territories that are defined using geography dimension become invalid.

This procedure is applicable only if territory geographies are defined.

Perform the following steps to delete the territory geography data.

1. From the Setup and Maintenance work area, search for **Manage Territory Geographies** and click **Go to Task**.
2. In the Manage Territory Geographies page, click **View All Hierarchies**.
3. Select the top node for the country for which you want to replace the master geography data and click the **Delete** icon.
4. In the Warning dialog box, click **OK**.
5. In the Confirmation dialog box, click **OK**. The parent node of the territory geography data and its children are deleted.
6. Repeat steps 3 to 5 to delete all top nodes in the territory geography data.
7. Click **Save and Close**.

Although the territory geography data is deleted, the territory definitions may appear to remain valid. This is because the Territory Management application retains a copy of the dimension members referenced in the territory definitions. This copy is updated when you trigger the **Load and Activate** process from the **Enable Dimensions and Metrics** task.

Deleting the Master Geography Data

To delete the master geography data for a country, you must create a support request with proper justification. Note that when the master geography data is deleted, the geography and its children are deleted and all the related territory, tax, and shipping zone references become invalid. So you must take backup of these before deleting the master geography data.

Importing Nokia Geography Reference Data

Use this procedure to import Nokia geography reference data licensed by Oracle. If the country data you want to import is not available, then the Import Nokia Data action is disabled.

The geography data is provided by Nokia and is third-party content. As per Oracle policy, this software and documentation may provide access to or information about content and services from third parties. Oracle and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content and services. Oracle and its affiliates are not responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Perform the following steps to import Nokia geography reference data. Currently, the revised Nokia geography reference data is available only for US at this time.

1. From the Setup and Maintenance work area, search for **Manage Geographies**, and click **Go to Task**.
2. In the Manage Geographies page, enter either the country name or the two-letter ISO code (for example, US), and click **Search**.
3. Select the country in the search results.
4. Click the **Actions** drop-down list, and select **Import Nokia Data**.
5. In the Warning dialog box, click **OK**.

6. In the Confirmation dialog box, click **OK**.

The import of larger countries may require several hours to complete.

You can track the progress of the import process by selecting **Scheduled Processes** from the Navigator menu.

> **Note:** To access the Scheduled Processes work area, you must be signed in as a user with the Employee abstract role. The initial user does not have this role assigned, but the other users you created do.

After the import is complete, you can search for the country again in the Manage Geographies page. Check marks now appear in the **Structure Defined** and **Hierarchy Defined** columns indicating the import completed successfully.

Next, click the **Validation Defined** icon to define the validations, enable List of Values, and choose address style format for a country as set up before. For more information, see the "Geography Validation: Explained" topic.

The **Geocoding Defined** and **Address Cleansing Defined** columns are used for additional features which you must license from Oracle and set up separately.

- Geocoding makes it possible to display customers in the vicinity of a mobile address. You set up **Geocoding Enabled** for those countries where you are using Around Me functionality in Sales Cloud Mobile.
- Cleansing makes it possible to validate addresses down to the street level.

Running the Geography Name Referencing Process

The Geography Name Referencing (GNR) process validates address elements in location tables, such as HZ_LOCATIONS, against the master geography data.

Perform the following steps to run the GNR process.

1. Navigate to the Scheduled Processes work area, and click **Schedule New Process**.
2. Click the **Name** drop-down list and search for **Validate Geographies Against Master Geographies**, and then click **OK**.
3. Click **OK** in the Schedule New Process dialog box.
4. In the Process Details dialog box, enter the following details:
   - **Location Table Name**: HZ_LOCATIONS
   - **Run Type**: ALL
   - **Usage Code**: GEOGRAPHY
5. Enter the country code in the Country Code field.

6. Click **Submit**.
7. In the Confirmation dialog box, click **OK**.
8. Click **Close**.
9. In the Scheduled Processes page, click the **Refresh** icon.
10. Verify if the status of the process has completed successfully.

Recreating and Loading the Territory Geography Data

You can recreate the territory geography data, after the master geography data is imported, using either of the following methods:

- Import process: If you created the original territory geography data using the import process, then use the same import file to recreate the territory geography structure.
  For more information about importing the territory geography data using the import file, see "Importing Territory Geography Hierarchies Using File-Based Data Import: Quick Start" in the Oracle Sales Cloud Understanding File-Based Data Import and Export guide.
- Manual creation process: You can manually recreate the territory geography data structures, as they existed before their deletion, using the Manage Territory Geographies task.
  For more information about creating zones and adding geographies to a zone, see "Managing Territory Geographies: Worked Example" topic.

After you have recreated the territory geography data, perform the following steps to load the data.

1. From the Setup and Maintenance work area, search for **Enable Dimensions and Metrics**, and click **Go to Task**.
2. In the Enable Dimensions and Metrics page, click the **Actions** drop-down list, and select **Load and Activate**.
   The process loads the territory geography data to make dimension members available for selection when defining territories.
3. In the Confirmation dialog box, click **OK**.
4. Click **Done**.

Restoring the Invalid Territory Definitions

After recreating the territory geography hierarchies and running the Load and Activate option from the **Enable Dimensions and Metrics** task, the geography dimensions are populated with the new geography members. The geography members in the territory appear as invalid because your territories still reference the old copies of the dimension members that were deleted. The new members are not referenced automatically by the territories. You must re-reference the territory definitions from the old geography dimension members to the new ones.

You can restore the invalid territory definitions by either importing the previously created export file or making manual corrections to the territories.

- Restoring Valid Territory Definitions Using Territories Import
  a. Open the export file you saved in the "Creating an Export File of All Territories" step. The compressed file contains four CSV files.
  b. Open **TERR_HEADER.CSV** file.
  c. Enter **REPLACE** in the Action column for all territories that are based on geography dimension.
  d. Save the file in CSV format and compress it together with three other CSV files.
  e. From the Territories and Quotas work area, click **View Active Territories** in the Tasks pane.
  f. Click the **Actions** drop-down list, and select **Import to Proposal**, and then **Import Territories**.
  g. Select the newly created compressed file and click **OK**.
  h. Click the **Actions** drop-down list and select **Import to Proposal**, and then **View Import Status**.
  i. Review the status of the export job and verify if it has completed successfully.

j. Click **OK**.
k. From the Tasks pane, click **Manage Territory Proposals**.
l. In the Manage Territory Proposals page, under Current Territory Proposals table, search for the proposal with your import file name.
m. Click the import file name to open the territory proposal.
n. Click **Edit Coverage** to verify that the territory definitions are valid.
o. Verify that there are no values listed as invalid in the Selected Dimension Members section.
p. Click **Save and Close**.
q. Click **Activate**. The territory proposal of your import file is activated.

- Restoring Valid Territory Definitions through Manual Corrections

  Although this method is always applicable, it is most appropriate when you have to restore territory definitions for a smaller number of territories.

  a. From the Territories and Quotas work area, click **Manage Territory Proposals** in the Tasks pane.
  b. In the Manage Territory Proposals page, click the **Create** icon.
  c. In the Create Territory Proposals dialog box, enter a name and click **Save and View**.
  d. In the Territory Proposals page, add all the territories with the Geography dimension value other than the value "Any" to the proposal.
  e. Select a territory and click **Edit Coverage**.
  f. In the Edit Coverage page, select **Geography** from the Dimensions drop-down list. The invalid dimension members are displayed in the Selected Dimension Members pane.
  g. Expand the values in the Available Dimension Members section or search for the member that has the same name as the one marked invalid in the Selected Dimension Members pane.
  h. Select one or more new geography dimension members from Available Dimension Members pane and click **Add** icon to the Selected Dimension Members pane.
  i. Click the **Remove** icon to remove the invalid members from the Selected Dimension Members pane.
  j. Click **Save and Close**.
  k. Repeat steps 4 to 10 for all territories that were based on Geography dimension.
  l. Click **Activate**. After the activation process is complete, your territory definitions are valid again and are referencing to the new geography data.

- Running Batch Assignment Process for Opportunities

  a. From Navigator, click **Scheduled Processes**.
  b. In the Schedule Processes page, click **Schedule New Process**.
  c. In the Schedule New Process dialog box, search for the **Revenue Territory Based Assignment** process and select it.
  d. Click **OK**.
  e. In the Process Details dialog box, enter **OpenOpportunitiesByCreationDate** in the View Criteria Name field. This selects all revenue lines belonging to open opportunities that were created in the last 'X' days.
  f. Enter **BindOptyCreationDateFrom=** followed by the date.

     For example, if BindOptyCreationDateFrom=2014-01-01, then all open opportunities which were created between 1st January 2014 till the current date, are processed.
  g. Click **Submit** to schedule the process.
  h. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
  i. Click **Close**.
  j. In the Schedule Processes page, click the **Refresh** icon.

k. Review the status of the process job and verify if it has completed successfully.

> **Note:** Review a small subset of the open opportunities to confirm that the territory assignment is as expected.

- Running Batch Assignment Process for Sales Accounts

  a. Ensure that the **ZCA_SA_AUTO_ASSIGN_ON_CREATE** and **ZCA_SA_AUTO_ASSIGN_ON_UPDATE** profile options are set to Yes in the **Manage Customer Center Profile Options** task.
  b. From Navigator, click **Customers**.
  c. In the Customers page, click **Create Account**.
  d. In the Create Account page, enter a name and address of the sales account, and select the **Address is sell to** check box.
  e. Click **Save and Close**.
  f. From Navigator, click **Customers**.
  g. In the Search pane, search for the name of the sales account you created and select it.
  h. Under Customer Information, select **Sales Account Team**. The details of the sales account and territories associated with the sales account are displayed.

     This indicates that the sales account was created successfully and the batch assignment was run automatically to assign the matching territories to the sales account.

  To run the batch assignment process manually from the Scheduled Processes page, perform the following steps.

  a. From Navigator, click **Scheduled Processes**.
  b. In the Schedule Processes page, click **Schedule New Process**.
  c. In the Schedule New Process dialog box, search for the **Request Sales Account Assignments** process and select it.
  d. Click **OK**.
  e. Enter **SalesAccount_Work_Object** in the Work Object Code field and **SalesAccountTerritory_Candidate_Object** in the Candidate Object Code field.
  f. Select **Territory** in the Assignment Mode list.
  g. Enter **AllSalesAccountsVC** in the View Criteria Name field. This selects all sales accounts.
  h. Click **Submit** to schedule the process.
  i. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
  j. Click **Close**.
  k. In the Schedule Processes page, click the **Refresh** icon.
  l. Review the status of the process job and verify if it has completed successfully.

> **Note:** Review a small subset of the accounts to confirm that the territory assignment is as expected.

Related Topics

- Managing Territory Geographies: Worked Example

Creating Countries: Procedure

This procedure lists the steps to create countries in Oracle Sales Cloud.

In Oracle Sales Cloud, countries are pre-seeded. If you are unable to find a specific country in the Manage Geographies page, then you can add it to the application.

> **Note:** Oracle Sales Cloud provides support for Nokia geography data for 60 countries. For more information on the list of countries, see the Nokia Geography Reference Data: Explained topic. For countries where Nokia geography data is not available, you can purchase the geography data from a third-party data provider and load it into the application using File-Based Data Import. For more information, see the Importing Geographies chapter in the Oracle Sales Cloud Understanding File-Based Data Import and Export guide. If countries are not available in the application, then use the procedure outlined in this topic to create them.

Perform the following steps to create a new country.

1. From the Setup and Maintenance work area, search for Manage Territories and click **Go to Task**.
2. Click the **New** icon.
3. Enter the following details:
   - Territory Code: Enter a unique code for the territory.
   - Territory Name: Enter a unique name for the territory.
   - Description: Enter a description for the territory.
4. Click **Save and Close**.

   > **Note:** After you have added a new country in the application, if you want to import the geography data for that country, then you must perform Step 5 to 10.

5. From the Setup and Maintenance work area, search for Manage Geographies and click **Go to Task**.
6. In the Manage Geographies page, enter either the country name or the two-letter ISO code for the country you just added, and click **Search**.
7. Select the country in the search results.
8. Click the **Actions** drop-down, and select **Create Country**.
9. In the Create Country dialog box, select the name of the country and click **Save**.
10. Click **Done**.

Importing Geographies Using File-Based Import: Explained

This topic explains how to prepare and import geography data from an external data source using the File-Based Data Import feature. A geography is any region with a boundary around it, regardless of its size. It might be a state, a country, a city, a county, or a ward. You must create or import geographies before you can associate them with custom zones and addresses.

Note: The application ships with third-party (Nokia) master geography data for multiple countries that can be easily imported. You can import Oracle-licensed Nokia data from Navteq, for those countries where the data is available, such as the U.S. You can import Nokia Geography data using the Manage Geographies task. Search for the country, and select Import Nokia Data from the Actions menu. If the licensed Navteq data is not available for a particular country, then the Import Nokia Data action is disabled. For more information, see Replacing Existing Master Geography Data with Revised Nokia Geography Data: Procedure. If Nokia geography data is not available for a country, then use the information in this chapter to import it using File-Based Data Import.

Consider the following questions when importing your data:

- How does your legacy system or source system represent the geography data compared to how Oracle applications represent the same data?
- Do you have to configure values in the application to map to your data values?
- What import features are available for importing your business object?
- How do you verify your imported data?

Comparing Business Object Structures

You must understand how your geography data corresponds with the data in the application so that you can map your legacy data to the data that the application requires. First, you must understand how the application represents the structure of the data for a geography.

You must import a separate country structure import object for each country. Each of these import objects must contain the geography types that are used in the country's structure, organized in a hierarchy using geography level numbers. For example, if you are importing the country structure of Australia, the country structure could be the following: 1: Country, 2: State, 3: County, 4: Town, 5: ZIP.

Import Objects for the Geography

To facilitate importing geographies, the application incorporates the structure of the geography into import objects. The import object for the geography is ImpGeography.

Comparing Business Object Data

Each import object is a collection of attributes that helps to map your data to the application data and to support one-to-many relationships between the structural components that make up the geography.

You must understand the attribute details of the import objects so that you can prepare your import data. You can use reference guide files that contain attribute descriptions, values that populate attributes by default when you do not provide values, and validation information for each import object attribute. The validation information includes the navigation path to the task where you can define values in the application. For example, if you have values in your data that correlate to a choice list in the application, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values. For additional information, including a list of reference guide file names and locations that you need to complete this task, see the following table.

Import Object	Related Import Object Topic
ImpGeography	Geography Import Objects: How They Work Together

Note:

You can use the keyword importing geographies to search for related topics in Help.

Extensible Attributes

The application doesn't support extensible attributes for geographies. You can import only data for geography object that already exist by default in the application.

Importing Geographies Using File-Based Data Import

For the geography business object, you must use the File-Based Data Import feature. You prepare XML or text source data files in a form that is suitable for a file-based import. The file-based import process reads the data in your source file, populates the interface tables according to your mapping, and imports the data into the application destination tables.

The Define File-Based Data Import Setup and Maintenance task list includes the tasks that are required to configure the import objects, to create source-file mappings, and to schedule the import activities. You submit file-based import activities for each import object. When you're creating a new geography, you import the Geography object. You must be assigned the Master Data Management Administrator job role to access and submit the import activities for geographies.

When importing geography information, you must provide the parent reference information for all parent levels for the entity.

Verifying Your Imported Data

Oracle applications provide File-Based Import activity reports, which you can use to verify imported data. Users with the Master Data Management Administrator job role can also navigate to the Manage Geographies work area to view the imported geographies.

Related Topics

- File-Based Data Import: How It Works
- Getting Started with File-Based Import: Documentation Overview

Geography Import Objects: How They Work Together

This topic describes the Geography import object. You use the Geography import object to import geography information.

This topic introduces the following:

- Target objects for the Geography import object
- Target import object attributes
- Reference guide files for target import object attributes

Geography Target Import Objects

You can use the Geography import object to import geography hierarchy information to create or update the geography data of a country. To map the source data in your import file to the target attributes in the application, you must understand how the target objects are related and what attributes are included in each target object.

The target import objects in the Geography import object contain information about the geography hierarchy. When updating an existing geography, you must provide the parent reference information of the existing geography, which connects the geography to the country of which it is a part.

Use the ImpGeography target import object to create and update geography information.

Note: Before you import geography data for a country, you must define the country's geography structure.

Target Import Object Attributes

You must compare the attributes that you want to import with the target object attributes that are available and with their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use a reference file. See the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/cloud/latest/salescs_gs/docs.htm). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. A reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or prerequisite setup tasks that are required.

To import your source file data, you define a mapping between your source file data and the combination of the target object and target object attribute. You can predefine and manage import mappings using the Manage File Import Mappings task, or you can define the mapping when you define the import activity using the Manage File Import Activities task. Both tasks are available in the Setup and Maintenance work area.

Note: If any of the attributes you want to import do not have an equivalent target object attribute, then review the Application Composer extensibility features for geography.

Reference Files for Target Import Object Attributes

To access the reference guide files for the geography's target import objects, see the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/cloud/latest/salescs_gs/docs.htm). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. For detailed information on importing geographies using file-based import, refer to Document No. 1481758.1, Importing Master Reference Geography Data, on the Oracle Support site.

The following table lists the reference files that are available by target import object.

Target Import Object	Description	Attribute Reference Guide File Names
ImpGeography	Contains information that captures a country's geography hierarchy details, such as geography type, geography code, etc.	HZ_ IMP_ GEOGRAPHIES_T _Reference

Related Topics

- File-Based Data Import: How It Works
- Getting Started with File-Based Import: Documentation Overview

Importing Geographies Using File-Based Data Import: Worked Example

This example demonstrates how to import data using the File-Based Data Import tool. In this example, you have a source file containing geography data that you want to import into the application so that the geography data can be used for real time address validation and tax purposes.

The following table summarizes the key decisions that you must make in this scenario.

Decisions to Consider	In This Example
What type of object are you importing?	Geography
What file type are you using for your source data?	Text file
Where are you uploading your source data file from?	Your desktop
What data type is your source data file?	Comma separated
Which fields are you importing into the application?	All, except for the RecordTypeCode field
When do you want to process the import?	Immediately

Summary of the Tasks

You perform the following steps to create an import activity and activate the import:

1. Determining what information is in the source file.
2. Creating and scheduling the import activity.
3. Monitoring the import results.

Prerequisites for Importing Additional Geography Data After Your Initial Import

1. Ensure that the combination of the Source ID and Parent Source ID values is unique for each row of data within a single import. However, your source data files don't need to have the same Source ID and Parent Source ID values as your previously imported geography data. If the geography structure levels and the parents for each geography value are the same, then the changed IDs will not affect the import.
2. Ensure that all the parents of a child geography are included in your data file so that the child geography can be added. For example, if you originally imported US, CA, and San Francisco, and now you want to import the city of San Jose in CA, then your data file must include US, CA, and San Jose.
3. Check that your source data file has the correct values for the geography data that you have already loaded. For example, if your initial import included the value US for country and CA as state, and in a subsequent import you have California as a state, then your geography import creates two state records (CA and California) in the application data, with the US as the country parent.

Determining What Information is in the Source File

1. The source geography data files must include a unique Source ID value for each row of data and Parent Source ID value for the parent of that row of data. The Source or Parent Source IDs should not be longer than 18 characters.
2. You can structure your geography source data as follows:

Geography Level	Name	Source ID	Parent Source ID
1 (Country)	US	1	
2 (State)	CA	11	1

Geography Level	Name	Source ID	Parent Source ID
3 (County)	Alameda	111	11
4 (City)	Pleasanton	1111	111
4 (City)	Dublin	1112	111

Creating and Scheduling the Import Activity

You can create an import activity, enter the import details, and schedule the import. An import activity includes selecting the source file or file location, mapping the source file to the database, and scheduling the import.

1. In the Setup and Maintenance work area, search for the **Manage File Import Activities** task. Click **Go to Task**.
2. In the Manage Import Activities page, click **Create**.
3. In the Create Import Activity: Map Fields page, map each field from your source file to the target object and attribute, as shown in the following table.

Field	Value
Name	Master Reference Geographies
Object	Geography
File Type	Text File
File Selection	Specific file
Upload From	Desktop
File Name	Choose relevant file from desktop
Data Type	Comma separated

Note: Ensure that the file type that you select in the Create Import Activity: Set Up page matches the file type of the source data file.

4. Click **Next**.
5. In the Create Import Activity: Map Fields page, map each field from your source file to the Oracle Sales Cloud database object and attribute, as shown in the following table.

Column Header	Example Value	Ignore	Object	Attribute
Primary Geography Name	Primary Geography Name	United States	Imp Geography	Primary Geography Name
Country Code	US	No	Imp Geography	Country Code

Column Header	Example Value	Ignore	Object	Attribute
Record Type Code	0	Yes	Imp Geography	Record Type Code
Source ID	10265	No	Imp Geography	Source ID
Parent Source ID	1053	No	Imp Geography	Parent Source ID

If you don't want to import a column in the text file, then you can select **Ignore**.

Note: If you can't map the fields from your source file to the relevant target object, then see the import object spreadsheets.

6. Click **Next**.
7. In the Create Import Activity: Create Schedule page, select **Immediate** in the Schedule field so that the import will start as soon as you activate it.

   Instead of immediately importing the data, you can choose a date and time to start the import. You can also specify whether the import will be repeated and the frequency of the repeated import.
8. Click **Next**.

Monitoring the Import Results

You can monitor the processing of the import activity and view the completion reports for both successful records and errors.

1. In the Create Import Activity: Review and Activate page, verify your import details in the Import Details, File Details, Import Options, and Schedule sections. Update the import details if required by navigating to the previous screens using the **Back** link.
2. Confirm your import details, and click **Activate** to submit the import.

   After the import activity has finished, the Status field value changes to Completed.

Related Topics

- File-Based Import Processing: How it Works

Importing Country Structures Using File-Based Import: Explained

This topic explains how to prepare and import country structure data from an external data source using the File-Based Data Import feature. A country structure is a hierarchical grouping of geography types for a country. For example, the geography structure for the United States has the geography type of State at the top, followed by the County, then the City, and finally the Postal Code.

You can use the country structure to set up the following:

- The relationships between geographies within a country
- The types of geographies that you can define for a country

Consider the following questions when importing your data:

- How does your legacy system or source system represent the geography data compared to how the application represents the same data?
- Do you have to configure values in the application to map to your data values?
- Do you have to customize the application to capture additional attributes that are critical to the way you do business?
- What import features are available for importing your business object?
- How do you verify your imported data?

Comparing Business Object Structures

You must understand how your country structure data corresponds with the data in the application so that you can map your legacy data to the data that the application requires. First, you must understand how the application represents the structure of the data for a country structure.

You must import a separate country structure import object for each country. Each of these import objects must contain the geography types that are used in the country's structure, organized in a hierarchy using geography level numbers. For example, if you're importing the country structure of Australia, the country structure could be the following: 1: Country, 2: State, 3: County, 4: Town, 5: ZIP.

Import Objects for the Country Structure

To facilitate importing country structures, the application incorporates the structure of the country structure into import objects. The import object for country structures is GeoStructureLevel.

Comparing Business Object Data

Each import object is a collection of attributes that helps to map your data to the application data and to support one-to-many relationships between the structural components that make up the country structure.

You must understand the attribute details of the import objects so that you can prepare your import data. . You can use reference guide files that contain attribute descriptions, values that populate attributes by default when you don't provide values, and validation information for each attribute. The validation information includes the navigation path to the task where you can define values in the application. For example, if you have values in your data that correlate to a choice list in the application, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values. For additional information, including a list of reference guide file names and locations that you need to complete this task, see the following table.

Import Object	Related Import Object Topic
Country Structure	Country Structure Import Objects: How They Work Together

Extensible Attributes

If you need to extend the application object to import your legacy or source data, you must use Application Composer to design your object model extensions and to generate the required artifacts to register your extensions and make them available for importing. The corresponding import object is updated with the extensible attributes, which can then be mapped to your source file data. You can use the same source file to import both extensible custom attributes and the standard import object attributes.

Importing Country Structures Using File-Based Data Import

For the country structure business object, you must use the File-Based Data Import feature. You prepare XML or text source data files in a form that is suitable for a file-based import. The file-based import process reads the data in your source file, populates the interface tables according to your mapping, and imports the data into the application destination tables.

The Define File-Based Data Import Setup and Maintenance task list includes the tasks that are required to configure the import objects, to create source-file mappings, and to schedule the import activities. You submit file-based import activities for each import object. When you're creating a new country structure, you import the Country Structure object. You must be assigned the Master Data Management Administrator job role to access and submit the import activities for country structures.

Verifying Your Imported Data

You can view the list of import activities from the Manage Import Activities page. You can verify your imported data by clicking the Status column for your import activity.

Related Topics

- File-Based Data Import: How It Works
- Getting Started with File-Based Import: Documentation Overview
- Extending Oracle Sales Cloud: How It Works

Country Structure Import Objects: How They Work Together

This topic describes the Country Structure import object. You use the Country Structure import object when you submit a file-based import activity to import your country structure information. This topic introduces the following:

- Target objects for the Country Structure import object
- Target import object attributes
- Reference guide files for target import object attributes

Country Structure Target Import Objects

The Country Structure import object contains one target import object. The target import object organizes the individual attributes of the different aspects of the geography structure. When updating an existing country structure, you must provide the parent reference information of the existing country structure. This reference information connects the imported geography structure to the existing one. Use the ImpGeoStructureLevel target import object to create and update country structure information.

Target Import Object Attributes

You must compare the attributes that you want to import with the target object attributes that are available and with their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use a reference file. See the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/cloud/latest/salescs_gs/docs.htm). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. A reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or prerequisite setup tasks that are required.

To import your source file data, you define a mapping between your source file data and the combination of the target object and target object attribute. You can predefine and manage import mappings using the Manage File Import Mappings task, or

you can define the mapping when you define the import activity using the Manage File Import Activities task. Both tasks are available in the Setup and Maintenance work area.

Note: If any of the attributes you want to import does not have an equivalent target object attribute, then review the Application Composer extensibility features for country structures.

Reference Files for Target Import Object Attributes

To access reference files for this object's target import objects, see the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/cloud/latest/salescs_gs/docs.htm). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects.

For detailed information on importing geographies using file-based import, refer to Document No. 1481758.1, Importing Master Reference Geography Data, on the Oracle Support site.

The following table lists the reference files that are available by target import object.

Target Import Object	Description	Reference Guide File Names
ImpGeoStructureLevel	Information that specifies a country's geography structure.	HZ_ IMP_ GEO_STRUCTURE _ LEVELS_ Reference

Related Topics

- File-Based Data Import: How It Works
- Getting Started with File-Based Import: Documentation Overview
- Importing Country Structures Using File-Based Import: Quick Start
- Extending Oracle Sales Cloud: How It Works

Importing and Exporting Territory Geography Zones: Explained

Territory geography zones are geographical boundaries that you can set up to replicate your organization's regions, such as a Pacific Northwest sales region. You can set up territory geography zones in one application instance, and then after the territory geography zones are defined you can export the territory zones and import them into another application instance.

To define your territory geography zones and then import your territory zones into another application instance, you must complete the following steps:

1. Import the master reference geography data into the application.
2. Define your territory geography zones using the Manage Territory Geographies task.
3. Export the territory geography zones.
4. Import the territory geography zones into another application instance.

Import the master reference geography data

Firstly, you need to import the master reference geography data. Master reference geography data consists of geography elements such as country, state, and city, and is required for any geographical information you store in the application, such as address information used in customer and sales records. For more information, refer to the Geography Hierarchy: Explained topic listed in the related topics section. Master reference geography data can be imported into the application

using the Manage File Import Activities task in Setup and Maintenance - refer to the Importing Master Reference Geography Data: Worked Example topic listed in the related topics section for more information.

Define your territory geography zones

Once the master reference geography data has been imported, you can then create your territory geography zones in the application using the Manage Territory Geographies task in Setup and Maintenance. For more information, refer to the Managing Territory Geographies: Worked Example topic listed in the related topics section.

Export the territory geography zones

Once you have completed importing the master reference geography data and defining your territory geography zone tasks, you can create a configuration package to export the territory zone data. For more information, refer to the Exporting Setup Data demo listed in the related topics section.

Import the territory geography zones

Once you have downloaded your configuration package for your territory geography zone setup, you can import the territory zones into another application instance. For more information, refer to the Importing Setup Data listed in the related topics section.

> **Note:** Ensure that you import your master reference geography data into the new application instance before you import the configuration package.

Related Topics

- Managing Territory Geographies: Worked Example

Defining Address Cleansing: Explained

Address cleansing validates, corrects, and standardizes address information that you enter in the application. Address cleansing, unlike geography validation, validates both the geography attributes and the address line attributes.

To use the address cleansing functionality, you need to have license for the customer data quality application, because the feature is delivered using data quality integration.

You can specify the real-time address cleansing level for each country by choosing either of these options:

- **None**: Specifies no real time address cleansing.
- **Optional**: Provides option to cleanse addresses.

Once you have enabled address cleansing for a country, a **Verify Address** icon appears at address entry points in the application. Click the icon to perform address cleansing and receive a corrected, standardized address. If the application does not find a matching address, then an alert message is displayed.

FAQs for Define Geographies

When do I define address cleansing?

When address data entered into the application needs to conform to a particular format, in order to achieve consistency in the representation of addresses. For example, making sure that the incoming data is stored following the correct postal address format.

Why can't I update a geography structure by copying an existing country structure?

You can only update a geography structure by adding existing geography types, or by creating new geography types and then adding them to the geography structure. You can only copy an existing country structure when you are defining a new country structure.

Why can't I delete a level of the country geography structure?

If a geography exists for a country geography structure level then you cannot delete the level. For example, if a state geography has been created for the United States country geography structure, then the State level cannot be deleted in the country geography structure.

Can I add any geography to the geography hierarchy?

Yes. However, the geography type for the geography that you want to add must be already added to the country geography structure.

Can I edit a specific geography in the geography hierarchy?

Yes. In the Manage Geography Hierarchy page you can edit details such as the geography's date range, primary and alternate names and codes, and parent geographies.

How can I add a geography that is the level below another geography in a geography hierarchy?

Select the geography that you want your geography to be created below, and then click the **Create** icon. This will allow you to create a geography for a geography type that is the level below the geography type you selected. The structure of the country's geography types are defined in the Manage Geography Structure page.

Manage Locations

Locations: Explained

A location identifies physical addresses of a workforce structure, such as a department or a job. You create and manage locations using the Manage Locations task in the Workforce Structures work area.

You can also create locations to enter the addresses of external organizations that you want to maintain, such as employment agencies, tax authorities, and insurance or benefits carriers.

The locations that you create exist as separate structures that you can use for reporting purposes, and in rules that determine employee eligibility for various types of compensation and benefits. You enter information about a location only once. Subsequently, when you set up other workforce structures you select the location from a list.

Location Sets

When you create a location, you must associate it with a set. Only those users who have access to the set's business unit can access the location set and other associated workforce structure sets, such as those that contain departments and jobs.

Note the following:

- You can also associate the location to the common set so that users across your enterprise can access the location irrespective of their business unit.

- When users search for locations, they can see the locations that they have access to along with the locations in the common set.

The following figure shows how locations sets restrict access to users.

Uploading Locations Using a Spreadsheet

If you have a list of locations already defined for your enterprise, you can upload them from a spreadsheet.

To use this option:

- Download a spreadsheet template
- Add your location information to the spreadsheet
- Upload directly to your enterprise configuration

You can upload the spreadsheet multiple times to accommodate revisions.

Related Topics

- Uploading Workforce Structures Using a Spreadsheet: Explained

FAQs for Manage Locations

Why can't I see my location in the search results?

You can search for approved locations only. Also, if you created a location in Oracle Fusion Trading Community Model, then you can't access that location from Oracle Fusion Global Human Resources. For use in Oracle Fusion HCM, you must recreate the location from the Manage Locations page.

What happens if I select a geographic hierarchy node when I'm creating or editing a location?

The calendar events that you created for the geographic node start to apply for the location and may impact the availability of worker assignments at that location. You manage locations using the Manage Locations task in the Workforce Structures work area.

The geographical hierarchy nodes available for selection on the Locations page display from a predefined geographic hierarchy.

Related Topics

- Worker Availability: How It Is Determined

What happens if I inactivate a location?

Starting from the effective date that you entered, you can no longer associate the location with other workforce structures, assignments, or applications. If the location is already in use, it will continue to be available to the components that currently use it.

Manage Enterprise HCM Information

Managing Enterprise Information for Non-HCM Users: Explained

The Manage Enterprise HCM Information task includes default settings for your enterprise such as the employment model, worker number generation, and so on. If you are not implementing Oracle Fusion Human Capital Management (HCM), then the only action you may need to perform using this task is to change the enterprise name, if necessary. The other settings are HCM-specific and are not relevant outside of Oracle Fusion HCM.

Manage Legal Jurisdictions

Jurisdictions and Legal Authorities: Explained

You are required to register your legal entities with legal authorities in the jurisdictions where you conduct business. Register your legal entities as required by local business requirements or other relevant laws. For example, register your legal entities for tax reporting to report sales taxes or value added taxes.

Define jurisdictions and related legal authorities to support multiple legal entity registrations, which are used by Oracle Fusion Tax and Oracle Fusion Payroll. When you create a legal entity, the Oracle Fusion Legal Entity Configurator automatically creates one legal reporting unit for that legal entity with a registration.

Jurisdictions: Explained

Jurisdiction is a physical territory such as a group of countries, country, state, county, or parish where a particular piece of legislation applies. French Labor Law, Singapore Transactions Tax Law, and US Income Tax Laws are examples of particular legislation that apply to legal entities operating in different countries' jurisdictions. Judicial authority may be exercised within a jurisdiction.

Types of jurisdictions are:

- Identifying Jurisdiction
- Income Tax Jurisdiction
- Transaction Tax Jurisdiction

Identifying Jurisdiction

For each legal entity, select an identifying jurisdiction. An identifying jurisdiction is your first jurisdiction you must register with to be allowed to do business in a country. If there is more than one jurisdiction that a legal entity must register with to commence business, select one as the identifying jurisdiction. Typically the identifying jurisdiction is the one you use to uniquely identify your legal entity.

Income tax jurisdictions and transaction tax jurisdictions do not represent the same jurisdiction. Although in some countries, the two jurisdictions are defined at the same geopolitical level, such as a country, and share the same legal authority, they are two distinct jurisdictions.

Income Tax Jurisdiction

Create income tax jurisdictions to properly report and remit income taxes to the legal authority. Income tax jurisdictions by law impose taxes on your financial income generated by all your entities within their jurisdiction. Income tax is a key source of funding that the government uses to fund its activities and serve the public.

Transaction Tax Jurisdiction

Create transaction tax jurisdictions through Oracle Fusion Tax in a separate business flow, because of the specific needs and complexities of various taxes. Tax jurisdictions and their respective rates are provided by suppliers and require periodic maintenance. Use transaction tax jurisdiction for legal reporting of sales and value added taxes.

Legal Authorities: Explained

A legal authority is a government or legal body that is charged with powers to make laws, levy and collect fees and taxes, and remit financial appropriations for a given jurisdiction.

For example, the Internal Revenue Service is the authority for enforcing income tax laws in United States. In some countries, such as India and Brazil, you are required to print legal authority information on your tax reports. Legal authorities are defined in the Oracle Fusion Legal Entity Configurator. Tax authorities are a subset of legal authorities and are defined using the same setup flow.

Legal authorities are not mandatory in Oracle Fusion Human Capital Management (HCM), but are recommended and are generally referenced on statutory reports.

Creating Legal Jurisdictions, Addresses and Authorities: Examples

Define legal jurisdictions and related legal authorities to support multiple legal entity registrations, which are used by Oracle Fusion Tax and Oracle Fusion Payroll.

Legal Jurisdictions

Create a legal jurisdiction by following these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Legal Jurisdictions** > **Go to Task**.
2. Select **Create**.
3. Enter a unique **Name**, United States Income Tax.
4. Select a **Territory**, United States.
5. Select a **Legislative Category**, Income tax.
6. Select **Identifying**, Yes. Identifying indicates the first jurisdiction a legal entity must register with to do business in a country.
7. Enter a **Start Date** if desired. You can also add an **End Date** to indicate a date that the jurisdiction may no longer be used.
8. Select a **Legal Entity Registration Code**, EIN or TIN.
9. Select a **Legal Reporting Unit Registration Code**, Legal Reporting Unit Registration Number.
10. Optionally enter one or more **Legal Functions**.
11. **Save and Close**.

Legal Addresses for Legal Entities and Reporting Units

Create a legal address for legal entities and reporting units by following these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Legal Address** > **Go to Task**.
2. Select **Create**.
3. Select **Country**.
4. Enter **Address Line 1**, Oracle Parkway.
5. Optionally enter **Address Line 2**, and **Address Line 3**.
6. Enter or Select **Zip Code**, 94065.
7. Select **Geography** 94065 and **Parent Geography** Redwood Shores, San Mateo, CA.
8. Optionally enter a **Time Zone**, US Pacific Time.
9. **OK**.

10. **Save and Close**.

Legal Authorities

Create a legal authority by following these steps:

1. **Navigator** > **Setup and Maintenance** >**Manage Legal Authorities** > **Go to Task**.
2. Enter the **Name**, California Franchise Tax Board.
3. Enter the **Tax Authority Type**, Reporting.

> **Note:** Create an address for the legal authority.

4. Select **Create**.
5. The **Site Number** is automatically assigned.
6. Optionally enter a **Mail Stop**.
7. Select **Country**, United States
8. Enter **Address Line 1**, 121 Spear Street, Suite 400.
9. Optionally enter **Address Line 2**, and **Address Line 3**.
10. Enter or Select **Zip Code**, 94105.
11. Select **Geography** 94105 and **Parent Geography** San Francisco, San Francisco, CA.
12. **OK**.
13. Optionally enter a **Time Zone**, US Pacific Time.
14. Optionally click the **One-Time Address** check box.
15. The **From Date** defaults to today's date. Update if necessary.
16. Optionally enter a **To Date** to indicate the last day the address can be used.

> **Note:** You can optionally enter **Address Purpose** details.

17. Select **Add Row**.
18. Select **Purpose**.
19. The **Purpose from Date** will default to today's date.
20. Optionally enter a **Purpose to Date**.
21. **OK**.
22. **Save and Close**.

Creating Legal Entities, Registrations, and Reporting Units: Examples

Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, and income, pay transaction taxes, or perform intercompany trading.

Legal Entity

Create a legal entity by following these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Legal Entity** > **Go to Task**.
2. Accept the default **Country**, United States.
3. Enter **Name**, InFusion USA West.
4. Enter **Legal Entity Identifier**, US0033.

5. Optionally enter **Start Date**. When the start date is blank the legal entity is effective from the creation date.
6. Optionally enter an **End Date**.
7. Optionally, if your legal entity should be registered to report payroll tax and social insurance, select the **Payroll statutory unit** check box.
8. Optionally, if your legal entity has employees, select the **Legal employer** check box.
9. Optionally, if this legal entity is not a payroll statutory unit, select an existing payroll statutory unit to report payroll tax and social instance on behalf of this legal entity.
10. Enter the **Registration Information**
11. Accept the default **Identifying Jurisdiction**, United States Income Tax.
12. Search for and select a **Legal Address**, 500 Oracle Parkway, Redwood Shores, CA 94065.

    The legal address must have been entered previously using the **Manage Legal Address** task.
13. **OK**.
14. Optionally enter a **Place of Registration**.
15. Enter the **EIN or TIN**.
16. Enter the **Legal Reporting Unit Registration Number**.
17. **Save and Close**.
18. **Navigator** > **Setup and Maintenance** > **Define Legal Entries** > **Manage Legal Entity** > **Select**... to set scope.
19. Select the **Manage Legal Entity**.
20. In the ***Legal Entity** list, select **Select and Add**.
21. Click **Apply and Go to Task**.
22. Select your legal entity.
23. **Save and Close** on the very bottom of the window.

    This sets the scope for your task list to the selected legal entity.
24. Save and Close.

Legal Entity Registrations

A legal entity registration with the same name as that of the legal entity is created by default. To verify this, locate the **Manage Legal Entity Registrations** task and then select **Go to Task**. To create another registration for the legal entity follow these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Legal Entity Registrations**: Verify that the **Legal Entity** scope value is set correctly.
2. **Go to Task**.
3. Select **Create**.
4. Enter **Jurisdiction**.
5. Enter **Registered Address**.
6. Enter **Registered Name**.
7. Optionally enter **Alternate Name**, **Registration Number**, **Place of Registration**, **Issuing Legal Authority**, and **Issuing Legal Authority Address**, **Start Date**, and **End Date**.
8. **Save and Close**.

Legal Reporting Unit

When a legal entity is created, a legal reporting unit with the same name as that of the entity is also automatically created. To create more legal reporting units or modify the settings follow these steps:

1. **Navigator** > **Setup and Maintenance** > **Define Legal Reporting Unit**. > Manage Legal Reporting Unit. Verify that the **Legal Entity** scope value is set correctly.

2. **Go to Task**
3. Select **Create**.
4. Enter **Territory**, United States.
5. Enter **Name**.
6. Optionally enter a **Start Date**.
7. Enter **Registration Information**.
8. Search for and select **Jurisdiction**.
9. Enter **Main Legal Reporting Unit** information.
10. Select the value Yes or No for the **Main Legal Reporting Unit**. Set value to yes only if you are creating a new main (primary) legal reporting unit.
11. Enter the **Main Effective Start Date**, 1/1/11.
12. **Save and Close**.

Related Topics

- Planning Legal Reporting Units: Points to Consider

Manage Legal Addresses

Creating Legal Jurisdictions, Addresses and Authorities: Examples

Define legal jurisdictions and related legal authorities to support multiple legal entity registrations, which are used by Oracle Fusion Tax and Oracle Fusion Payroll.

Legal Jurisdictions

Create a legal jurisdiction by following these steps:

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3. Enter a unique **Name**, United States Income Tax.
4. Select a **Territory**, United States.
5. Select a **Legislative Category**, Income tax.
6. Select **Identifying**, Yes. Identifying indicates the first jurisdiction a legal entity must register with to do business in a country.
7. Enter a **Start Date** if desired. You can also add an **End Date** to indicate a date that the jurisdiction may no longer be used.
8. Select a **Legal Entity Registration Code**, EIN or TIN.
9. Select a **Legal Reporting Unit Registration Code**, Legal Reporting Unit Registration Number.
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Create a legal address for legal entities and reporting units by following these steps:

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3. Select **Country**.
4. Enter **Address Line 1**, Oracle Parkway.
5. Optionally enter **Address Line 2**, and **Address Line 3**.
6. Enter or Select **Zip Code**, 94065.
7. Select **Geography** 94065 and **Parent Geography** Redwood Shores, San Mateo, CA.
8. Optionally enter a **Time Zone**, US Pacific Time.
9. **OK**.
10. **Save and Close**.

Legal Authorities

Create a legal authority by following these steps:

1. **Navigator** > **Setup and Maintenance** >**Manage Legal Authorities** > **Go to Task**.
2. Enter the **Name**, California Franchise Tax Board.
3. Enter the **Tax Authority Type**, Reporting.

> **Note:** Create an address for the legal authority.

4. Select **Create**.
5. The **Site Number** is automatically assigned.
6. Optionally enter a **Mail Stop**.
7. Select **Country**, United States
8. Enter **Address Line 1**, 121 Spear Street, Suite 400.
9. Optionally enter **Address Line 2**, and **Address Line 3**.
10. Enter or Select **Zip Code**, 94105.
11. Select **Geography** 94105 and **Parent Geography** San Francisco, San Francisco, CA.
12. **OK**.
13. Optionally enter a **Time Zone**, US Pacific Time.
14. Optionally click the **One-Time Address** check box.
15. The **From Date** defaults to today's date. Update if necessary.
16. Optionally enter a **To Date** to indicate the last day the address can be used.

> **Note:** You can optionally enter **Address Purpose** details.

17. Select **Add Row**.
18. Select **Purpose**.
19. The **Purpose from Date** will default to today's date.
20. Optionally enter a **Purpose to Date**.
21. **OK**.
22. **Save and Close**.

Manage Legal Entity

Legal Entities: Explained

A legal entity is a recognized party with rights and responsibilities given by legislation.

Legal entities have the following rights and responsibilities to:

- Own property
- Trade
- Repay debt
- Account for themselves to regulators, taxation authorities, and owners according to rules specified in the relevant legislation

Their rights and responsibilities may be enforced through the judicial system. Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, expenses and income, pay transaction taxes, or perform intercompany trading.

A legal entity has responsibility for elements of your enterprise for the following reasons:

- Facilitating local compliance
- Minimizing the enterprise's tax liability
- Preparing for acquisitions or disposals of parts of the enterprise
- Isolating one area of the business from risks in another area. For example, your enterprise develops property and also leases properties. You could operate the property development business as a separate legal entity to limit risk to your leasing business.

The Role of Your Legal Entities

In configuring your enterprise structure in Oracle Fusion Applications, the contracting party on any transaction is always the legal entity. Individual legal entities:

- Own the assets of the enterprise
- Record sales and pay taxes on those sales
- Make purchases and incur expenses
- Perform other transactions

Legal entities must comply with the regulations of jurisdictions, in which they register. Europe now allows for companies to register in one member country and do business in all member countries, and the US allows for companies to register in one state and do business in all states. To support local reporting requirements, legal reporting units are created and registered.

You are required to publish specific and periodic disclosures of your legal entities' operations based on different jurisdictions' requirements. Certain annual or more frequent accounting reports are referred to as statutory or external reporting. These reports must be filed with specified national and regulatory authorities. For example, in the United States (US), your publicly owned entities (corporations) are required to file quarterly and annual reports, as well as other periodic reports, with the Securities and Exchange Commission (SEC), which enforces statutory reporting requirements for public corporations.

Individual entities privately held or held by public companies do not have to file separately. In other countries, your individual entities do have to file in their own name, as well as at the public group level. Disclosure requirements are diverse. For example, your local entities may have to file locally to comply with local regulations in a local currency, as well as being included in your enterprise's reporting requirements in different currency.

A legal entity can represent all or part of your enterprise's management framework. For example, if you operate in a large country such as the United Kingdom or Germany, you might incorporate each division in the country as a separate legal

entity. In a smaller country, for example Austria, you might use a single legal entity to host all of your business operations across divisions.

Legal Entity in Oracle Fusion: Points to Consider

Oracle Fusion Applications support the modeling of your legal entities. If you make purchases from or sell to other legal entities, define these other legal entities in your customer and supplier registers. These registers are part of the Oracle Fusion Trading Community Architecture.

When your legal entities are trading with each other, represent them as legal entities and as customers and suppliers in your customer and supplier registers. Use legal entity relationships to determine which transactions are intercompany and require intercompany accounting. Your legal entities can be identified as legal employers and therefore, are available for use in Human Capital Management (HCM) applications.

Several decisions you should consider when you create legal entities.

- The importance of using legal entity on transactions
- Legal entity and its relationship to business units
- Legal entity and its relationship to divisions
- Legal entity and its relationship to ledgers
- Legal entity and its relationship to balancing segments
- Legal entity and its relationship to consolidation rules
- Legal entity and its relationship to intercompany transactions
- Legal entity and its relationship to worker assignments and legal employer
- Legal entity and payroll reporting
- Legal reporting units

The Importance of Using Legal Entities on Transactions

All of the assets of the enterprise are owned by individual legal entities. Oracle Fusion Financials allow your users to enter legal entities on transactions that represent a movement in value or obligation.

For example, a sales order creates an obligation on the legal entity that books the order to deliver the goods on the acknowledged date. The creation also creates an obligation on the purchaser to receive and pay for those goods. Under contract law in most countries, damages can be sought for both:

- Actual losses, putting the injured party in the same state as if they had not entered into the contract.
- What is called loss of bargain, or the profit that would have made on a transaction.

In another example, if you revalued your inventory in a warehouse to account for raw material price increases, the revaluation and revaluation reserves must be reflected in your legal entity's accounts. In Oracle Fusion Applications, your inventory within an inventory organization is managed by a single business unit and belongs to one legal entity.

Legal Entity and Its Relationship to Business Units

A business unit can process transactions on behalf of many legal entities. Frequently, a business unit is part of a single legal entity. In most cases, the legal entity is explicit on your transactions. For example, a payables invoice has an explicit legal entity field. Your accounts payables department can process supplier invoices on behalf of one or many business units.

In some cases, your legal entity is inferred from your business unit that is processing the transaction. For example, Business Unit ACM UK has a default legal entity of InFusion UK Ltd. When a purchase order is placed in ACM UK, the legal entity

InFusion UK Ltd is legally obligated to the supplier. Oracle Fusion Procurement, Oracle Fusion Project Portfolio Management, and Oracle Fusion Supply Chain applications rely on deriving the legal entity information from the business unit.<

Legal Entity and Its Relationship to Divisions

The division is an area of management responsibility that can correspond to a collection of legal entities. If wanted, you can aggregate the results for your divisions by legal entity or by combining parts of other legal entities. Define date-effective hierarchies for your cost center or legal entity segment in your chart of accounts to facilitate the aggregation and reporting by division. Divisions and legal entities are independent concepts.

Legal Entity and Its Relationship to Ledgers

One of your major responsibilities is to file financial statements for your legal entities. Map legal entities to specific ledgers using the Oracle Fusion General Ledger Accounting Configuration Manager. Within a ledger, you can optionally map a legal entity to one or more balancing segment values.

Legal Entity and Its Relationship to Balancing Segments

Oracle Fusion General Ledger supports up to three balancing segments. Best practices recommend one segment represents your legal entity to ease your requirement to account for your operations to regulatory agencies, tax authorities, and investors. Accounting for your operations means you must produce a balanced trial balance sheet by legal entity. If you account for many legal entities in a single ledger, you must:

1. Identify the legal entities within the ledger.
2. Balance transactions that cross legal entity boundaries through intercompany transactions.
3. Decide which balancing segments correspond to each legal entity and assign them in Oracle Fusion General Ledger Accounting Configuration Manager. Once you assign one balancing segment value in a ledger, then all your balancing segment values must be assigned. This recommended best practice facilitates reporting on assets, liabilities, and income by legal entity.

Represent your legal entities by at least one balancing segment value. You may represent it by two or three balancing segment values if more granular reporting is required. For example, if your legal entity operates in multiple jurisdictions in Europe, you might define balancing segment values and map them to legal reporting units. You can represent a legal entity with more than one balancing segment value. Do not use a single balancing segment value to represent more than one legal entity.

In Oracle Fusion General Ledger, there are three balancing segments. You can use separate balancing segments to represent your divisions or strategic business units to enable management reporting at the balance sheet level for each. This solution is used to empower your business unit and divisional managers to track and assume responsibility for their asset utilization or return on investment. Using multiple balancing segments is also useful when you know at the time of implementation that you are disposing of a part of a legal entity and want to isolate the assets and liabilities for that entity.

Implementing multiple balancing segments requires every journal entry that is not balanced by division or business unit, to generate balancing lines. You cannot change to multiple balancing segments after you begin using the ledger because your historical data is not balanced by the new balancing segments. Restating historical data must be done at that point.

If your enterprise regularly spins off businesses or holds managers accountable for utilization of assets, identify the business with a balancing segment value. If you account for each legal entity in a separate ledger, no requirement exists to identify the legal entity with a balancing segment value.

While transactions that cross balancing segments don't necessarily cross legal entity boundaries, all transactions that cross legal entity boundaries must cross balancing segments. If you make an acquisition or are preparing to dispose of a portion of your enterprise, you may want to account for that part of the enterprise in its own balancing segment even if the portion is not a separate legal entity. If you do not map legal entities sharing the same ledger to balancing segments, you cannot distinguish them using intercompany functionality or track individual equity.

Legal Entity and Its Relationship to Consolidation Rules

In Oracle Fusion Applications you can map legal entities to balancing segments and then define consolidation rules using your balancing segments. You are creating a relationship between the definition of your legal entities and their role in your consolidation.

Legal Entity and Its Relationship to Intercompany Transactions

Use Oracle Fusion Intercompany feature to create intercompany entries automatically across your balancing segments. Intercompany processing updates legal ownership within the enterprise's groups of legal entities. Invoices or journals are created as needed. To limit the number of trading pairs for your enterprise, set up intercompany organizations and assign then to your authorized legal entities. Define processing options and intercompany accounts to use when creating intercompany transactions and to assist in consolidation elimination entries. These accounts are derived and automatically entered on your intercompany transactions based on legal entities assigned to your intercompany organizations.

Intracompany trading, in which legal ownership isn't changed but other organizational responsibilities are, is also supported. For example, you can track assets and liabilities that move between your departments within your legal entities by creating departmental level intercompany organizations.

Tip: In the Oracle Fusion Supply Chain applications, you can model intercompany relationships using business units, from which legal entities are derived.

Legal Entity and Its Relationship to Worker Assignments and Legal Employer

Legal entities that employ people are called legal employers in the Oracle Fusion Legal Entity Configurator. You must enter legal employers on worker assignments in Oracle Fusion HCM.

Legal Entity and Payroll Reporting

Your legal entities are required to pay payroll tax and social insurance such as social security on your payroll. In Oracle Fusion Applications, you can register payroll statutory units to pay and report on payroll tax and social insurance for your legal entities. As the legal employer, you might be required to pay payroll tax, not only at the national level, but also at the local level. You meet this obligation by establishing your legal entity as a place of work within the jurisdiction of a local authority. Set up legal reporting units to represent the part of your enterprise with a specific legal reporting obligation. You can also mark these legal reporting units as tax reporting units, if the legal entity must pay taxes as a result of establishing a place of business within the jurisdiction.

Manage Legislative Data Groups

Legislative Data Groups: Explained

Legislative data groups are a means of partitioning payroll and related data. At least one legislative data group is required for each country where the enterprise operates. Each legislative data group is associated with one or more payroll statutory units. Each payroll statutory unit can belong to only one legislative data group.

Payroll-related information, such as elements, is organized by legislative data groups. Each legislative data group:

- Marks a legislation in which payroll is processed.
- Is associated with a legislative code, currency, and its own cost allocation key flexfield structure.

- Is a boundary that can share the same set up and still comply with the local laws.
- Can span many jurisdictions as long as they are within one country.
- Can contain many legal entities that act as payroll statutory units.

Manage Legal Entity HCM Information

HCM Organization Models: Examples

These examples illustrate different models for human capital management (HCM) organizations that include a legislative data group (LDG).

The example includes LDGs, which aren't organization classification, to show how to partition payroll data by associating them with a payroll statutory unit.

Simple Configuration

This example illustrates a simple configuration that does not include any tax reporting units.

Note the following:

- The legal employer and payroll statutory units are the same, sharing the same boundaries.
- Reporting can only be done at a single level. Countries such as Saudi Arabia and the United Arab Emirates (UAE) might use this type of model, as these countries report at the legal entity level.

This figure illustrates a simple configuration where the enterprise has only one legal entity, which is both a payroll statutory unit and a legal employer.

Multiple Legal Employers and Tax Reporting Units

This example illustrates a more complex configuration. In this enterprise, you define one legal entity, InFusion US as a payroll statutory unit with two separate legal entities, which are also legal employers. This model shows multiple legal employers that are associated with a single payroll statutory unit. Tax reporting units are always associated with a specific legal employer (or employers) through the payroll statutory unit.

The implication is that payroll statutory reporting boundaries vary from human resources (HR) management, and you can categorize the balances separately by one of the following:

- Payroll statutory unit
- Legal employer
- Tax reporting unit

This configuration is based on tax filing requirements, as some tax-related payments and reports are associated with a higher level than employers. An example of a country that might use this model is the US.

This figure illustrates an enterprise that has one payroll statutory unit and multiple legal employers and tax reporting units.

One Payroll Statutory Unit and Two Tax Reporting Units

This model makes no distinction between a legal employer and a payroll statutory unit. You define tax reporting units as subsidiaries to the legal entity.

In this enterprise, legal entity is the highest level of aggregation for payroll calculations and reporting. Statutory reporting boundaries are the same for both payroll and HR management. An example of a country that might use this model is France.

This figure illustrates an example of an organization with one legal entity. The legal entity is both a legal employer and a payroll statutory unit and that has two tax reporting units.

One Payroll Statutory Unit with Several Tax Reporting Units

In this model, the enterprise has one legal entity. Legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently.

Using this model, you wouldn't typically:

- Report on tax reporting unit balances within a legal employer
- Categorize balances by either or both organizations, as required

An example of a country that might use this model is India.

This figure illustrates an enterprise with one legal entity that is a payroll statutory unit and a legal employer. The tax reporting units are independent from the legal employer.

Multiple Payroll Statutory Units with Several Tax Reporting Units

In this model, the enterprise has two legal entities. The legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently.

Using this model, you wouldn't typically:

- Report on tax reporting unit balances within a legal employer
- Categorize balances by either or both organizations, as required

An example of a country that might use this model is the United Kingdom (UK).

This figure illustrates an enterprise with two legal entities, and legal employers and tax reporting units are independent from each other.

Payroll Statutory Units, Legal Employers, and Tax Reporting Units: How They Work Together

When you set up legal entities, you can identify them as legal employers and payroll statutory units, which makes them available for use in Oracle Fusion Human Capital Management (HCM). Depending on how your organization is structured, you may have only one legal entity that is also a payroll statutory unit and a legal employer, or you may have multiple legal entities, payroll statutory units, and legal employers.

Legal Employers and Payroll Statutory Unit

Payroll statutory units enable you to group legal employers so that you can perform statutory calculations at a higher level, such as for court orders or for United Kingdom (UK) statutory sick pay. In some cases, a legal employer is also a payroll statutory unit. However, your organization may have several legal employers under one payroll statutory unit. A legal employer can belong to only one payroll statutory unit.

Payroll Statutory Units and Tax Reporting Units

Payroll statutory units and tax reporting units have a parent-child relationship, with the payroll statutory unit being the parent.

Tax Reporting Units and Legal Employers

Tax reporting units are indirectly associated with a legal employer through the payroll statutory unit. One or more tax reporting units can be used by a single legal employer, and a tax reporting unit can be used by one or more legal employers. For example, assume that a single tax reporting unit is linked to a payroll statutory unit. Assume also that two legal employers are associated with this payroll statutory unit. In this example, both legal employers are associated with the single tax reporting unit.

Use the Manage Legal Reporting Unit HCM Information task to designate an existing legal reporting unit as a tax reporting unit. If you create a new legal reporting unit that belongs to a legal employer (that is not also a payroll statutory unit), you select a parent payroll statutory unit and then, when you run the Manage Legal Reporting Unit HCM Information task, you designate it as a tax reporting unit and select the legal employer.

Related Topics

- What's a tax reporting unit?

FAQs for Manage Legal Entity HCM Information

What's a legal employer?

A legal employer is a legal entity that employs workers. You define a legal entity as a legal employer in the Oracle Fusion Legal Entity Configurator.

The legal employer is captured at the work relationship level, and all assignments within that relationship are automatically with that legal employer. Legal employer information for worker assignments is also used for reporting purposes.

What's a payroll statutory unit?

Payroll statutory units are legal entities that are responsible for paying workers, including the payment of payroll tax and social insurance. A payroll statutory unit can pay and report on payroll tax and social insurance on behalf of one or many legal

entities, depending on the structure of your enterprise. For example, if you are a multinational, multiple company enterprise, then you register a payroll statutory unit in each country where you employ and pay people. You can optionally register a consolidated payroll statutory unit to pay and report on workers across multiple legal employers within the same country. You associate a legislative data group with a payroll statutory unit to provide the correct payroll information for workers.

Manage Legal Entity Tax Profile

Party Tax Profiles: Explained

A tax profile is the body of information that relates to a party's transaction tax activities. A tax profile can include main and default information, tax registration, tax exemptions, party fiscal classifications, tax reporting codes, configuration options, and service subscriptions.

Set up tax profiles for the following parties involved in your transactions:

- First parties
- Third parties
- Tax authorities

First Parties

Set up tax profiles for your first-party legal entities, legal reporting units, and business units.

First-party legal entities identify your organization to the relevant legal authorities, for example, a national or international headquarters. Legal entities let you model your external relationships to legal authorities more accurately. The relationships between first-party legal entities and the relevant tax authorities normally control the setup of the transaction taxes required by your business. Under most circumstances, the tax setup is used and maintained based on the configuration of the legal entity. Enter the default information, party fiscal classifications, tax reporting codes, and configuration options for your legal entities. You can also specify if you're using the tax services of an external service provider for tax calculation.

First-party legal reporting units identify each office, service center, warehouse, and any other location within the organization with a tax requirement. A legal reporting unit tax profile is automatically created for the headquarter legal entity. Set up additional legal reporting unit tax profiles for those needed for tax purposes. For legal reporting units, enter the default information, tax registrations, party fiscal classifications, and tax reporting codes. Also, define tax reporting details for your VAT and global tax reporting needs for tax registrations of tax regimes that allow this setup.

Business units organize your company data according to your internal accounting, financial monitoring, and reporting requirements. To help you manage the tax needs of your business units, you can use the business unit tax profile in either of two ways:

- Indicate that business unit tax setup is used and maintained based on the configuration of the associated legal entity at transaction time. The tax setup of the associated legal entity setup is either specific to the legal entity or shared across legal entities using the Global Configuration Owner setup.
- Indicate that tax setup is used and maintained by a specific business unit. Create configuration options for the business unit to indicate that the subscribed tax content is used for the transactions created for the business unit.

For business units that maintain their own setup, enter the default information, tax reporting codes, configuration options, and service providers as required.

Third Parties

Set up third-party tax profiles for parties with the usage of customer, supplier, and their sites. Enter the default information, tax registrations, party fiscal classifications, and reporting codes required for your third parties or third-party sites. You can set up tax exemptions for your customers and customer sites.

Banks are also considered third parties. When a bank is created, the tax registration number specified on the bank record is added to the party tax profile record in Oracle Fusion Tax. You can't modify the party tax profile for a bank as it's view only. You can only modify the bank record.

> **Note:** You don't need to set up party tax profiles for third parties. Taxes are still calculated on transactions for third parties that don't have tax profiles.

Tax Authorities

Set up a tax authority party tax profile using the Legal Authorities setup task. The tax authority party tax profile identifies a tax authority party as a collecting authority or a reporting authority or both. A collecting tax authority manages the administration of tax remittances. A reporting tax authority receives and processes all company transaction tax reports.

The collecting and reporting tax authorities appear in the corresponding list of values on all applicable Oracle Fusion Tax pages. All tax authorities are available in the list of values as an issuing tax authority.

Related Topics

- Specifying Third-Party Tax Profile Options: Points to Consider
- When does a party tax profile get created for a third party?

Specifying First-Party Tax Profile Options: Points to Consider

Set up first-party tax profiles for all legal entities, legal reporting units, and business units in your organization that have a transaction tax requirements. How you set up your first parties can impact the tax calculation on your transactions.

The first-party tax profile consists of:

- Defaults and controls: Applicable to legal entities and legal reporting units. Business units that use their own tax setup don't have defaults and controls.
- Tax registrations: Applicable to legal reporting units.
- Party fiscal classifications: Applicable to legal entities and legal reporting units.
- Tax reporting codes: Applicable to legal entities, legal reporting units, and business units who don't use the tax setup of the legal entity.
- Configuration options: Applicable to legal entities and business units who don't use the tax setup of the legal entity.
- Service subscriptions: Applicable to legal entities and business units who don't use the tax setup of the legal entity.

Defaults and Controls

The following table describes the defaults and controls available at the first-party tax profile level:

Option	Description
Set as self-assessment (reverse charge)	Automatically self-assess taxes on purchases.
Rounding Level	Perform rounding operations on the: • **Header**: Applies rounding to calculated tax amounts once for each tax rate per invoice. • **Line**: Applies rounding to the calculated tax amount on each invoice line.
Rounding Rule	The rule that defines how the rounding should be performed on a value involved in a taxable transaction. For example, up to the next highest value, down to the next lowest value, or nearest. **Note:** If you defined a rounding precedence hierarchy in the configuration owner tax option settings for the combination of configuration owner and event class, Oracle Fusion Tax considers the rounding details in the applicable tax profile.
Set Invoice Values as Tax Inclusive	This first party intends to send or receive invoices with invoice line amount inclusive of the tax amount. **Note:** This option overrides the tax inclusive handling setting at the tax level, but not at the tax rate level.

Tax Registrations

Set up a separate tax registration to represent each distinct registration requirement for a first-party legal reporting unit. Oracle Fusion Tax uses tax registrations in tax determination and tax reporting. If your first party has more than one tax registration under the same tax regime, then the application considers the tax registration in the order: tax jurisdiction; tax; tax regime.

You must enable the **Use tax reporting configuration** option on the first-party tax regime to allow entry of global tax reporting configuration details during tax registration setup for legal reporting units for these tax regimes.

Party Fiscal Classifications

If applicable, associate first-party fiscal classification codes with this party. The party fiscal classification codes you enter become part of tax determination for invoices associated with this party. Specify start and end dates to control when these fiscal classifications are applicable for this party and transaction.

For legal entities, you can view the associated legal classifications that were assigned to the tax regime defined for this first party. The legal classifications are used in the tax determination process, similar to the party fiscal classifications.

Tax Reporting Codes

Set up tax reporting types to capture additional tax information on transactions for your tax reports for your first parties. Depending on the tax reporting type code, you either enter or select a tax reporting code for this party. Specify start and end dates to control when these tax reporting codes are applicable.

Configuration Options

The legal entities and business units in your organization are each subject to specific sets of tax regulations as designated by the tax authorities where you do business. Use configuration options to associate legal entities and business units with their applicable tax regimes. You can set up tax configuration options when you create a tax regime or when you create a party tax profile. Both setup flows display and maintain the same party and tax regime definitions.

Service Subscriptions

Oracle Fusion Tax lets you use the tax services of external service providers for tax calculation of US Sales and Use Tax on Receivables transactions. The setup for provider services is called a service subscription. A service subscription applies to the transactions of one configuration option setup for a combination of tax regime and legal entity or business unit. Set up service subscriptions when you create a tax regime or when you create a party tax profile for a first-party legal entity or business unit.

Related Topics

- Tax Registrations: Explained
- Configuration Options: Explained
- Setting Tax Reporting Configuration Controls for VAT: Critical Choices
- Party Information: Explained
- Rounding Precedence Hierarchy: How It's Determined

FAQs for Manage Legal Entity Tax Profile

When does a party tax profile get created for a legal entity?

The legal entity party tax profile is automatically created when a legal entity record is created.

When a legal entity is created through a back-end process, a legal entity party tax profile is created, when you:

- Save a tax regime to which the legal tax entity subscribes.
- Save the configuration owner tax option that are defined for the legal entity.

You can also create a party tax profile for a legal entity manually. Use the Create Legal Entity Tax Profile page or edit the tax profile that was automatically generated with the relevant tax information.

5 Define Financial Reporting Structures

Manage Currencies

Defining Currencies: Points to Consider

When creating or editing currencies, consider these points relevant to entering the currency code, date range, or symbol for the currency.

Currency Codes

You can't change a currency code after you enable the currency, even if you later disable that currency.

Date Ranges

You can enter transactions denominated in the currency only for the dates within the specified range. If you don't enter a start date, then the currency is valid immediately. If you don't enter an end date, then the currency is valid indefinitely.

Symbols

Some applications support displaying currency symbols. You may enter the symbol associated with a currency so that it appears along with the amount.

Related Topics

- What's a statistical unit currency type?

Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date. If you have to use a different currency for Euro, you can disable the predefined currency and create a new one.

Derivation Type

The **Euro currency** derivation type is used only for the Euro, and the **Euro derived** derivation type identifies national currencies of EMU member states. All other currencies don't have derivation types.

Derivation Factor

The derivation factor is the fixed conversion rate by which you multiply one Euro to derive the equivalent EMU currency amount. The Euro currency itself must not have a derivation factor.

Derivation Effective Date

The derivation effective date is the date on which the relationship between the EMU currency and the Euro begins.

FAQs for Manage Currencies

When do I create or enable currencies?

Create or enable any currency for displaying monetary amounts, assigning currency to ledgers, entering transactions, recording balances, or for any reporting purpose. All currencies listed in the International Organization for Standardization (ISO) 4217 standard are supported.

The default currency is set to United States Dollar (USD).

What's the difference between precision, extended precision, and minimum accountable unit for a currency?

Precision refers to the number of digits placed to the right of the decimal point used in regular currency transactions. For example, USD would have 2 as the precision value for transactional amounts, such as $1.00.

Extended precision is the number of digits placed to the right of the decimal point and must be greater than or equal to the precision value. For calculations requiring greater precision, you can enter an extended precision value such as 3 or 4. That would result in the currency appearing as $1.279 or $1.2793.

Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for a cent.

In Setup and Maintenance work area, search for the Manage Currencies task to set these values for a currency.

Manage Conversion Rate Types

Creating Conversion Rate Types: Critical Choices

Maintain different conversion rates between currencies for the same period with the Oracle Fusion General Ledger conversion rate types functionality. Four predefined daily conversion rate types are seeded:

- Spot
- Corporate
- User
- Fixed

You can use different rate types for different business needs. During journal entry, the conversion rate is provided automatically by the General Ledger based on the selected conversion rate type and currency, unless the rate type is user. For user rate types, you must enter the conversion rate. Define additional rate types as needed. Set your most frequently used rate type as the default. Conversion rate types cannot be deleted.

Assign conversion rate types to automatically populate the associated rate for your period average and period end rates for the ledger. For example, you can assign the predefined rate type **Spot** to populate your period average rates and the predefined rate type **Corporate** to populate your period end rates. Period average and period end rates are used in translation of account balances.

Conversion rate types are used to automatically assign a rate when you perform the following accounting functions:

- Convert foreign currency journal amounts to ledger currency equivalents.

- Convert journal amounts from source ledgers to reporting currencies or secondary ledgers.
- Run Revaluation or Translation processes.

In creating new conversion rates, decide whether to do the following:

- Enforce inverse relationships
- Select pivot currencies
- Select contra currencies
- Enable cross rates and allow cross rate overrides
- Maintain cross rate rules

Enforce Inverse Relationships

Select the **Enforce Inverse Relationship** option to specify whether or not to enforce the automatic calculation of inverse conversion rates when defining daily rates.

Action	Results
Selected	When you enter a daily rate to convert currency A to currency B, General Ledger automatically calculates the inverse rate, currency B to A, and enters it in the adjacent column. If either rate is changed, the application automatically recalculates the other rate. You can update the application calculated inverse rate, but once you do, the related rate is updated. The check box enforces that the inverse relationship is maintained but does not prevent you from updating the rates.
Not Selected	General Ledger calculates the inverse rate but you can change the rate and update the daily rates table without the corresponding rate being updated.

Select Pivot Currencies

Select a pivot currency that is commonly used in your currency conversions. A pivot currency is the central currency that interacts with contra currencies. For example, you set up a daily rate between the US dollar (USD) and the Euro currency (EUR) and another between the USD and the Canadian dollar (CAD). USD is the pivot currency in creating a rate between EUR and CAD. EUR and CAD are the contra currencies. Select the pivot currency from the list of values which contains those currencies that are enabled, effective, and not a statistical (STAT) currency. The description of the pivot currency is populated automatically based on the currency definition.

If you want the application to create cross rates against a base currency, define the base currency as the pivot currency. Selected pivot currencies can be changed in the Rate Types page.

Select Contra Currencies

Select currencies available on the list of values as contra currencies. The available currencies are those currencies which are enabled, effective, not STAT currency, and not the pivot currency selected earlier. The description of the contra currency is populated automatically based on the currency definition. Add or delete contra currencies in the Contra Currencies region of the Rate Types page.

Enable Cross Rates and Allow Cross Rate Overrides

Check the **Enable Cross Rates** check box to calculate conversion rates based on defined currency rate relationships. General Ledger calculates cross rates based on your defined cross rate rules. Associate your cross rate rules with a conversion rate type, pivot currency, and contra currencies. Cross rates facilitate the creation of daily rates by automatically

creating the rates between contra currencies based on their relationship to a pivot currency. If the **Enable Cross Rates** check box is changed to unchecked after entering contra currencies, the application stops calculating cross rates going forward for that particular rate type. All the earlier calculated cross rates for that rate type remain in the database unless you manually delete them.

For example, if you have daily rates defined for the pivot currency, USD to the contra currency, EUR, and USD to another contra currency, CAD, the application will automatically create the rates between EUR to CAD and CAD to EUR. This prevents the need to manually define the EUR to CAD and CAD to EUR rates.

Check the **Allow Cross Rates Override** check box to permit your users to override application generated cross rates. If you accept the default of unchecked, the application generated cross rates cannot be overridden

Maintain Cross Rate Rules

Define or update your cross rate rules at any time by adding or removing contra currency assignments. Add a contra currency to a cross rate rule and run the Daily Rates Import and Calculation process to generate the new rates. If your remove a cross rate rule or a contra currency from a rule, any cross rates generated previously for that contra currency remain unless you manually delete them. Changes to the rule are not retroactive and will not affect previously stored cross rates. The Cross Rate process generates as many rates as possible and skips currencies where one component of the set is missing.

> **Note:** With a defined web service that extracts daily currency conversion rates from external services, for example Reuters, currency conversion rates are automatically updated for the daily rates and all cross currency relationships.

Using Rate Types: Examples

The four predefined conversion rate types in Oracle Fusion Applications are:

- Spot
- Corporate
- User
- Fixed

Scenario

You are the general ledger accountant for Vision US Inc. You are entering a journal entry to capture three transactions that were transacted in three different foreign currencies:

- Canadian dollar (CAD): A stable currency
- Mexican Peso (MXP): A fluctuating currency
- Hong Kong dollar (HKD): An infrequently used currency

You enter two lines with accounts and amounts for each foreign currency transaction. Based on your company procedures, you select the rate type to populate the rate for **Corporate** and **Spot** rate types from your daily rates table. You manually enter the current rate for the **User** rate type.

Currency Selected	Rate Type Selected	Reason
CAD	Corporate	Entered a periodic type of transaction. Your company has established a daily rate to use for the entire month across divisions

Currency Selected	Rate Type Selected	Reason
		for all transactions in CAD. CAD is a stable currency that only fluctuations slightly over the month.
MXP	Spot	Entered a periodic type of transaction. Your company enters daily rates each day for MXP because this currency is unstable and fluctuates.
HKD	User	Entered a one time transaction. Your company does not maintain daily rates in HKD.

Your company does not currently use the **Fixed** rate type. From January 1, 1999, the conversion rate of the French franc (FRF) against the Euro (EUR) was a fixed rate of 1 EUR to 6.55957 FRF. Your French operations were started in 2007, so you maintain all your French business records in the EUR.

FAQs for Manage Conversion Rate Types

What's the difference between spot, corporate, user, and fixed rate types?

Spot, corporate, user, and fixed conversion rate types differ based on fluctuations of your entered foreign currency and your company procedures for maintaining daily rates.

Rate Type	Usage
Spot	For currencies with fluctuating conversion rates or when exact currency conversion is needed.
Corporate	For setting a standard rate across your organization for a stable currency.
User	For infrequent entries where your daily rates for the entered foreign currency are not set up.
Fixed	For rates where the conversion is constant between two currencies.

If you have infrequent foreign currency transactions, the user rate type can simplify your currency maintenance. The user rate can also provide an accurate conversion rate on the date of the transaction.

Manage Daily Rates

Entering Daily Rates Manually: Worked Example

You are required to enter the daily rates for currency conversion from Great Britain pounds sterling (GBP) to United States dollars (USD) for 5 days for your company InFusion America Inc.

In order to load rates using the Daily Rates Spreadsheet, you need to install Oracle ADF Desktop Integration client software. Oracle ADF Desktop Integration is an Excel add-in that enables desktop integration with Microsoft Excel workbooks. Users can download the installation files from **Navigator > Tools > Download Desktop Integrator Installer.**

Entering Daily Rates

1. **Navigator** > **Period Close**.

   Use the **Period Close** work area to link to close processes and currency process.
2. Click the **Manage Currency Rates** link.

   Use the **Currency Rates Manager** page to create, edit, and review currency rate types, daily rates, and historical rates.
3. Click the **Daily Rates** tab.

   Use the **Daily Rates** tab to review and enter currency rates.
4. Click the **Create in Spreadsheet** button.

   Use the **Create Daily Rates** spreadsheet to enter daily rates in a template that you can save and reuse.
5. Click in the **From Currency** field. Select the GBP - Pound Sterling list item.
6. Click in the **To Currency** field. Select the USD - US Dollar list item.
7. Click in the **Conversion Rate** field. Select the Spot list item
8. Click in the **From Conversion** field. Enter a valid value: 10/1/2014.
9. Click in the **To Conversion Date** field. Enter a valid value: 10/5/2014.
10. Click in the **Conversion Rate** field. Enter a valid value: 1.6.
11. Click the **Submit** > **OK** twice.
12. Review the **Record Status** column to verify that all rows were loaded successfully.
13. Save template to use to enter daily rates frequently. You can save the spreadsheet to either a local drive or a shared network drive.
14. Optionally, edit the rates from the Daily Rates user interface or resubmit the spreadsheet.

Related Topics

- Using Desktop Integrated Excel Workbooks: Points to Consider

Updating Currency Rates: Worked Example

You are required to change today's daily rates that were already entered. The rates you are changing are for currency conversion from Great Britain pounds sterling (GBP) to United States dollars (USD) for your company InFusion America.

Currency conversion rates were entered by an automatic load to the Daily Rates table. They can also be entered through a spreadsheet.

Updating Currency Rates

1. Navigate to the Period Close work area.

   Use the Period Close work area to link to close processes and currency process.
2. Click the Manage Currency Rates link.

   Use the Currency Rates Manager page to create, edit, and review currency rate types, daily rates, and historical rates.
3. Click the Daily Rates tab.

Use the Daily Rates tab to review and enter currency rates.

4. Click the From Currency list. Select the GBP - Pound Sterling list item.
5. Click the To Currency list. Select the USD - US Dollar list item.
6. Enter the dates for the daily rates that you are changing. Enter today's date.
7. Click the Rate Type list. Select the Spot list item.
8. Click the Search button.
9. Click in the Rate field. Enter the new rate of 1.7 in the Rate field.
10. Click in the Inverse Rate field. Enter the new inverse rate of 0.58822 in the Inverse Rate field.
11. Click the Save button.

Related Topics

- Using Desktop Integrated Excel Workbooks: Points to Consider

Manage Chart of Accounts Structures and Structure Instances

Chart of Accounts: Explained

The chart of accounts is the underlying structure for organizing financial information and reporting. An entity records transactions with a set of codes representing balances by type, expenses by function, and other divisional or organizational codes that are important to its business.

A well-designed chart of accounts provides the following benefits:

- Effectively manages an organization's financial business.
- Supports the audit and control of financial transactions.
- Provides flexibility for management reporting and analysis.
- Anticipates growth and maintenance needs as organizational changes occur.
- Facilitates an efficient data processing flow.
- Enables delegation of responsibility for cost control, profit attainment, and asset utilization.
- Measures performance against corporate objectives by your managers.

The chart of accounts facilitates aggregating data from different operations, from within an operation, and from different business flows, thus enabling the organization to report using consistent definitions to their stakeholders in compliance with legislative and corporate reporting standards and aiding in management decisions.

Best practices include starting the design from external and management reporting requirements and making decisions about data storage in the general ledger, including thick versus thin general ledger concepts.

Chart of Accounts: How Its Components Fit Together

The important elements in a basic chart of accounts in Oracle Fusion Applications included a structure that defines the account values, segments and their labels, and rules (security and validation). Account combinations link the values in the segments together and provide the accounting mechanism to capture financial transactions.

Chart of Accounts

The chart of accounts defines the number and attributes of various segments, including:

- Order of segments
- Width of segments
- Prompts
- Segment labels, such as balancing, natural account, and cost center.

The chart of accounts further defines:

- Combination of value sets associated with each segment
- Type of segment

- Default values for the segments
- Additional conditions designating the source of the values using database tables
- Required and displayed properties for the segments

Segments

A chart of accounts segment is a component of the account combination. Each segment has a value set attached to it to provide formatting and validation of the set of values used with that segment. The combination of segments creates the account combination used for recording and reporting financial transactions. Examples of segments that may be found in a chart of accounts are company, cost center, department, division, region, account, product, program, and location.

Value Sets and Values

The value sets define the attributes and values associated with a segment of the chart of accounts. You can think of a value set as a container for your values. You can set up your flexfield so that it automatically validates the segment values that you enter against a table of valid values. If you enter an invalid segment value, a list of valid values appears automatically so that you can select a valid value. You can assign a single value set to more than one segment, and you can share value sets across different flexfields.

Caution: You must use Independent validation only for the Accounting Key Flexfield value sets. Other validations prevent you from using the full chart of accounts functionality, such as data security, reporting, and account hierarchy integration. Dependent values sets are not supported.

Segment Labels

Segment labels identify certain segments in your chart of accounts and assign special functionality to those segments. Segment labels were referred to as flexfield qualifiers in Oracle E-Business Suite. Here are the segment labels that are available to use with the chart of accounts.

- **Balancing**: Ensures that all journals balance for each balancing segment value or combination of multiple balancing segment values to use in trial balance reporting. The three balancing segment labels are: primary, second, and third balancing. The primary balancing segment label is required.
- **Cost Center**: Facilitates grouping of natural accounts by functional cost types, accommodating tracking of specific business expenses across natural accounts. As cost centers combine expenses and headcount data into costs, they are useful for detailed analysis and reporting. Cost centers are optional, but required if you are accounting for depreciation, additions, and other transactions in Oracle Fusion Assets, and for storing expense approval limits in Oracle Fusion Expense Management. If you are implementing Oracle Fusion Procurement, you can use cost centers for business intelligence reporting and to route transactions for approval.
- **Natural Account**: Determines the account type (asset, liability, expense, revenue, or equity) and other information specific to the segment value. The natural account segment label is required.
- **Management**: Optionally, denotes the segment that has management responsibility, such as the department, cost center, or line of business. Also can be attached to the same segment as one of the balancing segments to make legal entity reporting more granular.
- **Intercompany**: Optionally, assigns the segment to be used in intercompany balancing functionality.

Note: All segments have a segment qualifier that enables posting for each value. The predefined setting is Yes to post.

Account Combinations

An account combination is a completed code of segment values that uniquely identifies an account in the chart of accounts, for example 01-2900-500-123, might represent InFusion America (company)-Monitor Sales (division)-Revenue (account)-Air Filters (product).

Rules

The chart of accounts uses two different types of rules to control functionality.

- **Security rules**: Prohibit certain users from accessing specific segment values. For example, you can create a security rule that grants a user access only to his or her department.
- **Cross-validation rules**: Control the account combinations that can be created during data entry. For example, you may decide that sales cost centers 600 to 699 should enter amounts only to product sales accounts 4000 to 4999.

Create Chart of Accounts, Ledger, Legal Entities, and Business Units in Spreadsheets: Explained

Represent enterprise structures of your chart of accounts, ledger, legal entities, and business unit configuration to track and report on your financial objectives and meet your reporting requirements. These components are the underlying structure for organizing financial information and reporting.

The chart of accounts within the ledger facilitates:

- Aggregating data from different operations, from within an operation, and from different business flows
- Consistent definitions to your stakeholders in compliance with legislative and corporate reporting standards and aids in management decisions

Rapid implementation is a way to configure a financial enterprise and financial reporting structures quickly using sheets in a workbook that upload lists of:

- Companies (legal entities)
- Ledgers by country
- Business units
- Chart of accounts and segment values
- Segment value hierarchies
- Financial sequences
- Required subledger accounts

Once the sheets have been uploaded, the application creates your:

- Chart of accounts structure and instance
- Segment value hierarchies
- Key accounts such as retained earnings
- Required subledger accounts
- Calendar
- Primary ledgers by country
- Legal entities and their locations

- Business units
- Document and journal sequences

The following figure shows the relationship of these components.

- **Legal Entity**: Identifies a recognized party with rights and responsibilities given by legislation, which has the right to own property and the responsibility to account for themselves.
- **Chart of Accounts**: Configures accounts consisting of components called segments that are used to record balances and organize your financial information and reporting.
- **Segment**: Contains a value set that provides formatting and validation of the set of values used with that segment. When combined, several segments create an account combination for recording your transactions and journal entries.
- **Segment Label**: Identifies certain segments in your chart of accounts and assigns special functionality to those segments. The required segment labels are:
    - **Balancing Segment**: Ensures that all journals balance for each balancing segment value or combination of multiple balancing segment values to use in financial processes and reporting. The three balancing segment

labels are: Primary balancing segment, Second balancing segment, and Third balancing segment. The Primary balancing segment label is required and must be the first segment in the Rapid Implementation spreadsheet.

- **Natural Account**: Facilitates processes in the General Ledger application, such as retained earnings posting. For each child value, you must assign an Account Type. You can select from one of the general choices to mark the account value as an Asset, Liability, Owner's Equity, Revenue, or Expense account.

  If the account is used by the rapid implementation solution to provide accounts for setup objects, select the appropriate Expanded Account Type value for the child account. Examples of expanded account types required for setup objects are:

  - Owner's Equity - Retained Earnings: To set up General Ledger ledgers.
  - Liability - Accounts Payable: To set up Payables common options.
  - Asset - Accounts Receivable: To set up Receivables receipt methods.

  Accounts tagged with expanded account types are automatically assigned a financial category. You can override the default category in the Financial Category field, or leave it out.
- **Cost Center**: Facilitates grouping of natural accounts by functional cost types, accommodating tracking of specific business expenses across natural accounts.

- **Ledger**: Maintains the records and is a required component in your configuration. The rapid implementation process:
  - Creates your primary ledgers by combining your chart of accounts, calendar, and currency as well as other required options defined in the sheets.
  - Assigns a default value for the fourth component, which is the subledger accounting method. The subledger accounting method is used to group subledger journal entry rule sets together to define a consistent accounting treatment.

    Note: The standard accrual method is the default subledger accounting method assigned to the primary ledger.
  - Creates a General Ledger balances cube for each ledger with a unique chart of accounts and calendar combination. Each segment is created as a dimension in the balances cube along with the standard cube dimensions.
- **Business Units with Business Functions**: Identifies where subledger transactions are posted and provides access to perform subledger business processes. When configured, business units are assigned to a primary ledger and a default legal entity.
- **Subledger**: Captures detailed transactional information, such as supplier invoices, customer payments, and asset acquisitions. Uses subledger accounting to transfer transactional balances to the ledger where they are posted.

Note: **Segment Value Hierarchies**: You can create more than one hierarchy for any of your chart of accounts segments during initial setup. You can also create additional hierarchies after the initial setup is done by uploading the rapid implementation spreadsheet data. **Document and Journal Sequences**: You can create sequences for each legal entity or ledger based on the predefined country defaults. Document sequences are created for:

- Payables invoices
- Payments
- Receivables invoices
- Receivables credit memos
- Receivables adjustment activities

Reporting and accounting journal sequences are created for subledger journals and General Ledger journals.

Create Chart of Accounts, Ledger, Legal Entities, and Business Units in Spreadsheets: How They're Processed

The Create Chart of Accounts, Ledger, Legal Entities, and Business Units rapid implementation process consists of four steps.

1. Entering data into the sheets.
2. Verifying the entered data and resolving the errors, if any.
3. Uploading the first file generated.
4. After successful upload of the first file, uploading the second file generated for the rest of the configuration.

Process Overview

Begin by downloading the Rapid Implementation for General Ledger workbook using the Create Chart of Accounts, Ledger, Legal Entities, and Business Units in Spreadsheet task on the Setup and Maintenance work area.

The following figure illustrates the Create Chart of Accounts, Ledger, Legal Entities, and Business Units process, what data is entered into each sheet of the workbook, and the components that the process creates.

The Rapid Implementation for General Ledger workbook includes the following sheets:

- Instructions
- Chart of Accounts, Calendar, and Ledger
- Business Units
- Companies and Legal Entities
- Natural Accounts
- Financial Sequences

Sheets for entering other segment values and hierarchies for additional segments of your chart of accounts are created automatically by entering the segments on the Chart of Accounts, Calendar, and Ledger sheet and then clicking **Add Segment Sheets** or **Generate Additional Hierarchy** on that same sheet.

Instructions Sheet

Read the planning tips, loading process, best practices, and recommendations. Refer to the sample data worksheet to get an idea of how to enter the data and generate the required upload files.

The following figure shows the link to the sample data template on the Instructions sheet.

Chart of Accounts, Calendar, and Ledger Sheet

Enter the data to create your ledger, chart of accounts, currency, and calendar, and to set the required ledger options.

- **Name**: Enter the name of your primary ledgers.

> **Note:** A primary ledger is created for each unique country entered in the Companies and Legal Entities sheet. The country code is appended to the name you have specified to create the primary ledger. For example, if one of the legal entities is based in the United States and another in Canada, and the ledger name is InFusion Ledger, then two primary ledgers, InFusion Ledger US and InFusion Ledger CA, are created. All the primary ledgers that are created use the same chart of accounts, account hierarchies, and accounting calendar. Legal entities and their primary balancing segment values are assigned to the primary ledger of their respective countries.

- **Currency**: Enter the ledger currency in which most of your transactions are entered if you're not entering legal entity data. If you're entering legal entities, leave the field blank. The currency is supplied by default based on the country.
- **Period Frequency**: Select one of the available frequencies.
- **Adjusting Periods**: Select the number of periods that are used to enter closing, auditing, or other adjustments in the General Ledger at quarter or year end. The entries are tracked in the adjusting period and not in your monthly activity.
- **Fiscal Year Start Date**: Enter the start date of your calendar for the ledgers. The date can't be changed after the ledgers are created.

  Caution: Select a period before the first period in which you plan to load history or perform translations to enable running translation. You can't run translation in the first defined period of a ledger calendar.

- **Chart of Accounts** section: Enter your segments, segment labels, short prompts, and display width data that's used to create your chart of accounts. Plan this data carefully because you're defining the basic structure for your accounting and reporting.
  - **Segment**: Enter the names of your segments.
  - **Segment Label**: Select which segment the application uses for certain processing, such as the Primary Balancing Segment, which is used to balance journal entries.

    Note: If you select an Intercompany Segment label, you must complete at least one intercompany rule. You must also select the **Enable Intercompany Balancing** option using the Specify Ledger Options task for the Balancing API to perform intercompany balancing. Also note that the same hierarchy specified for the primary balancing segment is also used for the intercompany balancing segment automatically.

    Note: If you plan to enable segment value security rules for the primary balancing segment, then you should not assign the Intercompany Segment label to the Intercompany segment. By default, the Rapid Implementation spreadsheet assigns the same value set to the Company and Intercompany segments if the Intercompany Segment label is assigned. If you want to use segment value security rules for the Company segment where a user can only access Company 01, that user can't transact with other companies in an intercompany transaction because segment value security rules are assigned at the value set level. What you should do instead is not assign the Intercompany Segment label to the Intercompany segment. Use the **Add Segment Sheets** button to add sheets for any unqualified segments, and assign the values directly. Obviously, you will want to assign the same values to the Company and Intercompany segments. You must then assign the Intercompany segment label to this segment by navigating to Edit Key Flexfield Segment Intercompany using the application pages to use the intercompany segment in intercompany balancing.

  - **Short Prompt**: Enter a short name for the segment for the application to use.
  - **Display Width**: Enter the segment size. Select carefully and leave room for growth. For example, if you have 89 cost centers, enter 3 for the display length to allow for more than 100 cost centers in the future.
- **Add Segment Sheets** button: Select to create sheets for additional segments. Only the Company and Natural Accounts sheets are provided.

  From the new segment sheet, you can click **Generate Additional Hierarchy** to create more than one hierarchy for any of your chart of account segments. This creates a worksheet and populates it with the data already entered for

that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup or after the initial setup is done.

- **Step 1**: **Validate** button: Click to validate your entered data. An actionable validation report is generated if any errors occur in data entry. Correct these errors before proceeding by clicking each error on the report. Clicking the error navigates you to the exact sheet and cell on that sheet where the error can be found.
- **Step 2**: **Generate Chart of Accounts File** button: Click to create a file that is then uploaded to create the chart of accounts structures, values, and hierarchies.
- **Step 3**: **Generate Ledger**, **LE**, **and BU File** button: Click to create a file that is then uploaded to create ledgers, legal entities and their locations, business units (BU), and document and journal sequences.

Business Units Sheet

Enter the name of your business units and related default legal entities.

Business Units

Name	Default Legal Entity Name
USA Business Unit1	VCC InFusion Cupertino Cherries
USA Business Unit2	VSCC InFusion San Carlos Chocolates
Canada Business Unit1	Infusion Core Canada Ltd.

You can enter more than one business unit per ledger. Business units are created with entered names. Based on the default legal entity entered in the Business Units sheet, the respective country's primary ledger is supplied by default for the business unit. The first legal entity that is associated with the ledger is supplied by default for all the business units of that country.

Companies and Legal Entities Sheet

Enter a list of your legal entities with their addresses, registration number, reporting unit registration number, and assigned parent or child value. You can create up to nine levels of parent values to use to roll up your legal entities to meet corporate and local reporting requirements.

The registration number identifies legal entities registered for your company and recognized in law for which you want to record and perform transactions. The reporting unit registration number identifies the lowest level component of a legal structure that requires registrations.

Companies and Legal Entities Generate Additional Hierarchy

* Required

Parent2	Parent1	Child	*Company Description	Name	*Identifier	*Country
			Total InFusion Companies			
			InFusion USA			
3800			InFusion USA Corporate Office			
		3888	InFusion USA Corporation	IFU InFusion USA Ltd.	US103111	United States
		3999	InFusion USA HQ	IFU InFusion USA Ltd.		
3100			InFusion Napa			
		3111	InFusion Marketing - US Napa	IFU InFusion USA Ltd.		
		3121	InFusion Sales -US Napa	IFU InFusion USA Ltd.		
	3200		InFusion Farms			
		3211	InFusion Growing -US	IFF InFusion Farms Ltd.	US104111	United States
		3221	InFusion Harvesting -US	IFF InFusion Farms Ltd.		

Legal Entity							
Address							
*Address Line	City	State	County	Province	Postal Code	*Registration Number	*Reporting Unit Registration Number
14800 Main	St. Helena	CA	Napa			IF5021	IFUS31
12320 Washington	Calistoga	CA	Napa			IF5031	IFUS41

To create additional hierarchies for the company segment for reporting or other purposes, click the **Generate Additional Hierarchy** button on this sheet. This creates a worksheet and populates it with the data already entered for that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup or after the initial setup is done.

Note: For the Company segment, adding legal entity information isn't supported on the new hierarchy's sheet.

Note: When a new hierarchy sheet is created, the name for that sheet is derived by adding a counter to the sheet name. For example, when you click **Generate Additional Hierarchy** on the Companies and Legal Entities sheet, the new sheet is named Companies and Legal Entities 1. When you click **Generate Additional Hierarchy** again, another sheet is generated with the name Companies and Legal Entities2.

Natural Accounts Sheet

Enter your account values that are used to record the type of balance.

Generate Additional Hierarchy

Note

alue							
Parent4	Parent3	Parent2	Parent1	Child	*Description	*Account Type	Financial Category
					Net Assets	Asset	
				00000	Default	Asset	
19999					Total Assets	Asset	
	10000				Total Cash	Asset	
		11000			Total Cash- Checking	Asset	
				11010	Cash Checking - Others	Asset	
	13999				Total Receivables	Asset	
		13000			Total Current Receivables	Asset	
				13005	Accounts Receivable	Asset - Accounts Receivable	Accounts receivable

- **Parent Values**, **Child Values** and **Descriptions**: Enter to create segment values and build hierarchies. Child values are the postable account values. To define hierarchies, enter parent values. Hierarchies are used for chart of accounts mappings, revaluations, data access sets, cross-validation rules, and segment value security rules. The balances cube and account hierarchies are also used for financial reporting, Smart View queries, and allocations.
- **Account Type**: Enter to identify the type of account: Asset, Liability, Revenue, Expense, or Owner's Equity. Account types are used in year-end close processes and to correctly categorize your account balances for reporting.

  If the account is used by the rapid implementation solution to provide accounts for setup objects, select the appropriate Expanded Account Type value for the child account. Examples of expanded account types required for setup objects are:

  - **Owner's Equity** - **Retained Earnings**: To set up General Ledger ledgers.
  - **Liability** - **Accounts Payable**: To set up Payables common options.
  - **Asset** - **Account Receivable**: To set up Receivables receipt methods.

  Accounts tagged with expanded account types are automatically assigned a financial category. You can override the default category in the **Financial Category** field, or leave it out.
- **Financial Category**: Enter to identify groups of accounts for reporting with Oracle Transactional Business Intelligence.
- **Generate Additional Hierarchy**: To create additional hierarchies for the company segment for reporting or other purposes, click the **Generate Additional Hierarchy** button on this sheet. This creates a worksheet and populates it with the data already entered for that segment. Change this data as required for the new hierarchy. You can create additional hierarchies during initial setup or after the initial setup is done.

Financial Sequences Sheet

Enable document or journal sequences to assign unique numbers to your transactions to meet legal requirements.

Sequences

Transactions	*Restart	*Initial Value
Payables Invoices	Annually	1
Payments	Annually	1
Receivables Invoices	Annually	1
Receivables Credit Memos	Annually	1
Receivables Adjustment Activities	Monthly	1
Subledger Journals	Never	100
General Ledger Journals	Never	100

The transactions the document sequences are created for include:

- Payables invoices
- Payments
- Receivables invoices
- Receivables credit memos
- Receivables adjustment activities

Reporting and accounting journal sequences are created for:

- Subledger journals
- General Ledger journals

Complete the following steps on the Sequences sheet:

1. **Restart**: Set to restart the numbering based on one of the following criteria:
   - **Annually**: Restart sequence numbers once a year.
   - **Monthly**: Restart sequence numbers each month.
   - **Never**: Never restart sequences numbers. Continue with the same sequence.
2. **Initial Value**: The beginning number in the sequence.

Upload the Sheets

After you complete the other sheets, return to the Chart of Accounts, Calendar, and Ledger sheet and perform the following steps:

1. Click **Step 1**: **Validate**. The process validates your data entry. Ensure the validation report has no errors.
2. Click **Step 2**: **Generate Chart of Accounts File**. The process generates a data file called ChartOfAccounts.xml with the entered chart of accounts and hierarchies setup data. Save the file to a network or local drive.
3. Click **Step 3**: **Generate Ledger**, **LE**, **and BU File**. The process generates a data file called FinancialsCommonEntities.xml with the entered ledger, legal entities, and business unit setup data. Save the file to a network or local drive.

4. Navigate to the Setup and Maintenance work area. Search for and select the **Upload Chart of Accounts** task. The Upload Enterprise Structures and Hierarchies process is launched.
5. Accept the default selection of the **Upload Enterprise Structure** option.

6. Click **Browse** and select the first file that you saved called ChartOfAccounts.xml.
7. Click **Submit**.
8. Verify that the process completed without errors or warnings.
9. Navigate to the Setup and Maintenance work area. Search for and select the **Upload Ledger**, **Legal Entities**, **and Business Units** task. The Upload Enterprise Structures and Hierarchies process is launched.
10. Accept the default selection of the **Upload Enterprise Structure** option.
11. Click **Browse** and select the second file that you saved called FinancialsCommonEntities.xml.
12. Click **Submit**.
13. Verify that the process completed without errors or warnings.

Tip: You can't change the chart of accounts, accounting calendar, or currency for your ledgers after the setup is created. Open the first accounting period to begin entering data with a user that has proper access to the newly-created primary ledger.

Create Additional Hierarchies After Initial Setup

To create more than one hierarchy for any of your chart of account segments after the initial enterprise structure setup:

1. Click the **Generate Additional Hierarchy** button on the segment's sheet for which you want to create the additional tree or tree version. This creates a new worksheet and populates the sheet with the data already entered for that segment. Change the data as required for the new hierarchy.
2. To create the hierarchy based on the data in the particular sheet in context only, click the **Generate File for This Hierarchy Only** button. This generates a .zip file for the particular hierarchy. Perform the following steps to either create a new tree or a new version for an existing tree for the particular segment.
3. Navigate to the Setup and Maintenance work area. Search for and select the **Upload Chart of Accounts** task. The Upload Enterprise Structures and Hierarchies process is launched.

4. Select the **Upload Hierarchy** option.

5. Select to either create a hierarchy or tree version as per your requirement.
6. Specify the required parameters.
7. Click **Choose File** and select the .zip file that you saved earlier.
8. Click **Submit**.

Related Topics

- Create Hierarchies in a Spreadsheet: Example

Creating One Chart of Accounts Structure with Many Instances: Example

In Oracle Fusion General Ledger, the chart of accounts model is framed around the concept of a chart of accounts structure, under which one or more chart of accounts structure instances can be created.

Scenario

Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion has purchased an Oracle Fusion enterprise resource planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers. You are chairing a committee to discuss creation of a model for your global financial reporting structure including your charts of accounts for both your US and UK operations.

InFusion Corporation

InFusion Corporation has 400 plus employees and revenue of $120 million. Your product line includes all the components to build and maintain air quality monitoring (AQM) systems for homes and businesses.

Analysis

In Oracle Fusion General Ledger, the chart of accounts model is framed around the concept of a chart of accounts structure, under which one or more chart of accounts structure instances can be created.

Chart of Accounts Model

The chart of accounts structure provides the general outline of the chart of accounts and determines the number of segments, the type, the length, and the label (qualifier) of each segment. This forms the foundation of the chart of accounts definition object.

For each chart of accounts structure, it is possible to associate one or more chart of accounts structure instances. Chart of accounts structure instances under the same structure share a common configuration with the same segments, in the same order, and the same characteristics. Using one chart of accounts structure with multiple instances simplifies your accounting and reporting.

At the chart of accounts structure instance level, each segment is associated with a value set that conforms to the characteristic of that segment. For example, you assign a value set with the same segment type and length to each segment. You are using hierarchies with your chart of accounts segments. Each structure instance segment is assigned a tree code to indicate the source of the hierarchy information for the associated value set. The same value set can be used multiple times within the same or across different chart of accounts instances within the same structure or in different structures. This functionality reduces your segment value creation and maintenance across your charts of accounts.

The collective assignment of value sets to each of the segments forms one chart of accounts instance. At the chart of accounts structure instance level, you can select to enable dynamic insertion. Dynamic insertion allows the creation of account code combinations automatically the first time your users enter that new account combination. The alternative is to create them manually. By deciding to enable dynamic insertion, you save data entry time and prevent delays caused by the manual creation of new code combinations. Well defined cross validation rules help prevent the creation of inappropriate account code combinations.

Perform deployment after a new chart of accounts structure and structure instances are defined or any of their modifiable attributes are updated. Deployment validates and regenerates the necessary objects to enable your charts of accounts and chart of accounts structure instances. By unifying and standardizing you organization's chart of accounts, you are positioned to take full advantage of future functionality in Oracle Fusion General Ledger.

In summary, you are recommending to your company to unify the organization's chart of accounts in a single chart of accounts structure based on chart of accounts commonalities across ledgers. You have also decided to use the chart of accounts structure instance construct to serve different accounting and reporting requirements by using value sets specific to each of your entities.

Creating Chart of Accounts Structure and Instances: Examples

In Oracle Fusion General Ledger, the chart of accounts model is framed around the concept of a chart of accounts structure, under which one or more chart of accounts structure instances can be created. A chart of accounts structure defines the key attributes for your chart of accounts, such as the number of segments, the segment sequences, the segment names, segment prompts, segment labels, for example natural account and primary balancing, and default value sets.

The chart of accounts instance is exposed in the user interfaces and processes. By default, a chart of accounts instance inherits all the attributes of the chart of accounts structure, meaning that all instances of the same structure share a common shape and have the same segments in the same order. However, at the chart of accounts instance level, you can override the default value set assignments for your segments and assign a unique account hierarchy that determines the parent and child relationships between the value set values. At the chart of accounts instance level, determine if allow dynamic insertion is enabled to generate new account combinations dynamically instead of creating them manually.

Chart of Account Structure

You are creating a chart of accounts structure as you setup your chart of accounts for your enterprise, InFusion America, Inc. Follow these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Chart of Accounts** > **Go To Task**.
2. Select **General Ledger** from the Module list of values and click **Search**.
3. Click **Manage Structures** to open the **Manage Key Flexfield Structures** page.
4. Select the **General Ledger** row and click the **Create** to open the **Create Key Flexfield Structure** page.
5. Enter a unique Structure Code, **INFUSION_AM_COA_STRUCTURE**, and Name, **InFusion America COA Structure**. Provide an optional Description, **InFusion America Inc. Chart of Accounts Structure.**
6. Select the **-** Delimiter to visually separate your segment values.
7. **Save**.
8. To create a new segment, click the **Create** to open the **Create Key Flexfield Segment** page.
   a. Enter the following parameters:

Parameter	Value
Segment Code	INFUSION_AM_CO
Name	InFusion America Company
Description	InFusion America Inc.
Sequence Number	1
Prompt	Company
Short Prompt	CO
Display Width	2
Column Name	Segment1
Default Value Set Code	INFUSION_ AM_COMPANY

   b. Select a segment label, **Primary Balancing Segment**, to indicate its purpose within your chart of accounts.

      Note: Two segment labels are required: primary balancing segment and natural account segment. These labels are not used with each other or with other labels in a specific segment.

   c. **Save and Close**.

d. **Done.**
e. Define additional segments following the same process.

Chart of Account Instance

You are creating a chart of accounts instance as you setup your chart of accounts for your enterprise, InFusion America, Inc. Follow these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Chart of Accounts** > **Go To Task**.
2. Select **General Ledger** from the Module list of values and click **Search**.
3. Select the **General Ledger** row and click **Manage Structure Instances** to open the **Manage Key Flexfield Structure Instance** page.
4. Click the **Create** icon to open the **Create Key Flexfield Structure Instance** page.
5. Enter a unique Structure Instance Code, **INFUSION_AM_COA_INSTANCE**, and Name, **InFusion America COA Instance**. Provide an optional Description, **InFusion America Inc. Chart of Accounts Structure Instance.**
6. Select **Dynamic combination creation allowed** to indicate that you want to dynamically generate account combinations.
7. Associate your instance with your Structure Name, **InFusion America Structure**.

   Note: By default, an instance inherits the key attributes of the associated structure. Some attributes, such as the value set assigned to each the segment, can be modified.

8. **Save**.
9. Optionally, select the segment row and click **Edit** to modify instance segments.
10. Check **Required**, **Displayed**, and **BI enabled** check boxes.

    Note: Check the Required and Displayed options for all segments including those intended for future use. The recommended best practice is to define one segment for future use and set a default value. This ensures room for expansion in your chart of accounts and that the extra segment is populated in the account combinations. Check the BI (Business Intelligence) enabled option to use key flexfield segments in Oracle Fusion Transactional Business Intelligence. The business intelligence check box is only valid when enabled on segments with segment labels. The second step is to populate the BI Object Name field for each of the segment labels in the Manage Segment Label page opened from the Manage Key Flexfields page.

11. **OK**.
12. **Save and Close**.
13. Define additional instances following the same process.

    Note: Alternatively, proceed directly with creating your value set values by selecting the corresponding **Value Set Code** in the Segment Instances table.

14. **Done.**
15. **Deploy Flexfield.**
16. **OK**.

Related Topics

- Enabling Key Flexfield Segments for Business Intelligence: Points to Consider

Balancing Segments: Explained

Balancing segments ensure that all journals balance for each balancing segment value or combination of multiple balancing segment values. You can secure access to your primary balancing segment values only with data access sets. The General Ledger application automatically calculates and creates balancing lines as required in journal entries.

The three balancing segment labels are:

- Primary
- Second
- Third

Note: The primary balancing segment label is required.

By enabling multiple balancing segments for your chart of accounts, you can produce financial statements for each unique combination of segment values across one, two, or three qualified balancing segments. This ability provides you greater insights into your operations as it affords you visibility along the critical fiscal dimensions you use to plan, monitor, and measure your financial performance.

The following explains processes that use balancing segments.

- Intercompany balancing: Adds lines to unbalanced journals using intercompany rules.
- Opening first period of the accounting year: Calculates retained earnings amounts at the level of granularity that totals revenue and expense account balances for multiple balancing segment value combinations. This applies to standard and average balances.
- Importing journals: Adds lines using the suspense account on unbalanced journals.
- Posting journals: Adds additional lines to unbalanced journals for the following enabled account types:
  - Suspense
  - Rounding
  - Net income
  - Retained earnings
  - Cumulative translation adjustments from replication of revaluation journals to reporting currencies and for multiple reporting currency account type specific conversion
- Posting prior period journals: Calculates any income statement impact and posts to the appropriate retained earnings account.
- Translating balances: Supports multiple balancing segments for the following accounts:
  - Retained earnings: Calculated translated retained earnings are post to the retained earnings accounts by balancing segment. Retained earnings accounts represent the summing of the translated revenue and expense accounts across multiple balancing segment values.
  - Cumulative translation adjustment: Amounts posted by balancing segment to these accounts represents currency fluctuation differences between ranges of accounts which use different rate types. For example, period end rates are used for asset and liability accounts and historical rates for equity accounts.
- Revaluing Balances: Supports multiple balancing segments when calculating gain or loss accounts.
- Creating Opening Balances: Initializes reporting currency balances by converting from the total primary currency. Any difference in the reporting currency amounts is offset by populating retained earnings accounts.

- Closing year end: Supports multiple balancing segments when calculating the income statement offset and closing account in the closing journals.

Multiple Balancing Segments: Points to Consider

Oracle Fusion General Ledger supports tracking financial results at a finer level of granularity than a single balancing segment. In addition to the required primary balancing segment for the chart of accounts, which is typically associated with the company dimension of a business organization, two additional segments of the chart of accounts can be optionally qualified as the second and third balancing segments respectively. Possible chart of accounts segments that can be tagged as these additional balancing segments include cost center or department, additional aspects of a business commonly used in measuring financial results.

Several points must be consider when using multiple balancing segments:

- Journal entry processing
- Implementation timing
- Change options
- Migration adjustments

Journal Entry Processing

Multiple balancing segments ensure that account balances come from journal entries where the debits equal the credits. The financial reports are properly generated for each unique instance of account value combinations across the balancing segments. Consider this option carefully as it provides more granular reporting but requires more processing resources.

Implementation Timing

When using optional second and third balancing segments, remember that these chart of accounts segment labels are set from the beginning of time. Ensure that balances are immediately maintained in accordance with the necessary balancing actions to produce consistent financial reporting for the wanted business dimensions. Multiple balancing segment ledgers that are not maintained from the beginning of time, require extensive manual balance adjustments to catch up and realign the balances.

Note: Do not set a segment already qualified as a natural account or intercompany segment as any of the three balancing segments. Validations are not performed when segment labels are assigned, so verify that all are assigned correctly before using your chart of accounts.

Change Options

Once a segment has been enabled and designated as a balancing segment, you must not change the segment. Do not disable the segment or remove the segment labels. These settings must be consistently maintained throughout the life of the chart of accounts to control the accuracy and integrity of the financial data.

Migration Adjustments

For charts of accounts migrated from Oracle E-Business Suite to Oracle Fusion General Ledger that uses a second and third balance segments, steps must be taken to ensure the proper transition. The required adjustments are extensive.

For ledgers associated with a migrated chart of accounts, the balances must be adjusted manually. The manual adjustment is to ensure that the second and third balancing segments are consistent as though these segment labels have been in place

since the beginning of entries for these ledgers. Recomputing and updating of the following processes is required to reflect the correct balancing for each account using the second and third balancing segments.

- Intercompany balancing
- Suspense posting
- Rounding imbalance adjustments on posting
- Entered currency balancing
- Revaluation gains or losses
- Retained earnings calculations at the opening of each new fiscal year
- Cumulative translation adjustments during translation

Note: All previously translated balances must also be purged. New translations must be run to properly account for translated retained earnings and cumulative translation adjustments with the correct level of balancing.

Related Topics

- How can I change segments in an existing chart of accounts structure?

Using Multiple Balancing Segments: Example

This simple example illustrates balancing along two balancing segments for a simple chart of accounts with three segments.

Scenario

Your company has a chart of accounts with two balancing segments and three segments, qualified as follows:

- Company: Primary balancing segment
- Cost Center: Second balancing segment
- Account: Natural account segment

The following multiple company and cost center journal transfers advertising and phone expense from Company 1, Cost Center A to Company 2, Cost Center B.

Account	Debit	Credit
Company 1-Cost Center A-Advertising Expense Account	600	
Company 2-Cost Center B-Advertising Expense Account		600
Company 1-Cost Center A-Phone Expense Account	800	
Company 2-Cost Center B-Phone Expense Account		800

During the posting process, the last four lines are created to balance the entry across the primary and second balancing segments, company and cost center.

Account	Debit	Credit
Company 1-Cost Center A-Advertising Expense Account	600	
Company 2-Cost Center B-Advertising Expense Account		600
Company 1-Cost Center A-Phone Expense Account	800	
Company 2-Cost Center B-Phone Expense Account		800
Company 1-Cost Center A-Balancing Account		600
Company 2-Cost Center B-Balancing Account	600	
Company 1-Cost Center A-Balancing Account		800
Company 2-Cost Center B-Balancing Account	800	

FAQs for Manage Charts of Accounts Structures and Structure Instances

How can I use future accounting segments?

To plan for future growth in the business organization that requires additional segments in the chart of accounts. Extra segments can be added to the chart of accounts structure during your original implementation. All segments of the chart of accounts are required and have to be enabled. The unused segments can be assigned value sets that have a single value in the chart of accounts structure instance. The value is set as a default for that segment so that the extra segments are automatically populated when an account account combination is used.

Manage Chart of Accounts Value Sets and Value Set Values

Chart of Accounts Values Sets: Critical Choices

A value set is the collection of account values that are associated with a segment of a chart of accounts structure instance. When creating values sets, consider the following critical choices:

- Module Designation
- Validation Type
- Format Assignments
- Security Rules
- Values Definition

Module Designation

The module designation is used to tag value sets in Oracle Fusion Applications and sets the value sets apart during upgrades and other processes. Chart of accounts value sets upgraded from Oracle E-Business Suite Release 12 generically bear the module value of **Oracle Fusion Middleware**. When creating value sets for a chart of accounts, the module can be specified as **Oracle Fusion General Ledger** to distinctly identify its intended use in an accounting flexfield, basically a chart of accounts.

Validation Type

Assign one of the following validation types to chart of accounts value sets:

- **Independent**: The values are independently selected when filling out the segment in the account combination.
- **Table Validated**: The values are stored in an external table to facilitate maintenance and sharing of the reference data.

Caution: You must use Independent validation only for the Accounting Key Flexfield value sets. Other validations prevent you from using the full chart of accounts functionality, such as data security, reporting, and account hierarchy integration. Dependent values sets are not supported.

Format Assignments

Value sets for chart of accounts must use the **Value Data Type** of **Character**. The **Value Subtype** is set to **Text**. These two setting support values that are both numbers and characters, which are typical in natural account segment values. Set the maximum length of the value set to correspond to the length of the chart of accounts segment to which it is assigned. Best practices recommend restricting values to **Upper Case Only** or **Numeric** values that are zero filled by default.

Security Rules

If flexfield data security rules are to be applied to the chart of accounts segment associated with the value set, the **Enable Security** check box must be checked for the assigned value set. In addition, assign a data security resource name to enable creation of a data security object automatically for the value set. The data security object is used in the definition of flexfield data security rules.

Value Definition

Once these basic characteristic are defined for the value set, values can be added to the set in the Manage Values page.

- Set the values to conform to the value set length and type.
- Enter the value, its description, and its attributes including the **Enable** check box, **Start Date**, and **End Date**.
- Assign the following attributes: **Parent** or **Summary** check box, **Posting is allowed**, and **Budgeting is allowed**.

Note: If the value set is used with a natural account segment, the value also requires you set the **Natural Account Type**, with one of the following values: **Asset, Liability, Equity, Revenue**, or **Expense**. Other attributes used are **Third-Party Control Account, Reconciliation** indicator, and **Financial Category** used with Oracle Transaction Business Intelligence reporting. Oracle Fusion General Ledger best practice is to define the values for the value set after the value set is assigned to a chart of accounts structure instance. Otherwise you are not able to define the mandatory value attributes, such as summary flag, posting allowed, and account type for natural account segment. The attributes must be added after the value set is assigned to a chart of accounts structure instance.

Creating a Value Set for Your Chart of Accounts: Example

Create your value sets before creating your chart of accounts. A value set can be shared by different charts of accounts or across different segments of the same chart of accounts.

Scenario

You are creating a company value set to be used in your chart of accounts for your enterprise, InFusion America, Inc. Follow these steps:

1. **Navigator** > **Setup and Maintenance** > **Manage Chart of Accounts Value Sets** >**Go to Task**.
2. Click the **Create** icon on the toolbar of the Search Results table. The **Create Value Set** page opens.
3. Enter a unique Value Set Code, **InFusion America Company**, and an optional Description, **Company values for InFusion America Inc.**
4. Select **General Ledger** from the list in the Module field.
5. Select **Independent** as Validation Type.

   Note: You must use Independent validation only for the Accounting Key Flexfield value sets. Other validations prevent you from using the full chart of accounts functionality, such as data security, reporting, and account hierarchy integration. Dependent values sets are not supported.

6. Select **Character** as the Validation Data Type.
7. **Save and Close**.

Configuring Chart of Account Segment for Business Intelligence: Explained

To map the Oracle Fusion General Ledger Accounting Flexfield in Oracle Fusion Transaction Business Intelligence (BI) Repository file (RPD) for Oracle Fusion Financials, populate values in the Manage Key Flexfields user interface. These values enable the chart of accounts segments for Oracle Fusion Transactional BI. The values also provide the mapping with BI Object names that are used as dimensions for each of the chart of accounts segments.

Check each of the Chart of Accounts segments' **BI enabled** check box on all segments that you intend to map in the RPD:

1. From your implementation project or the **Setup and Maintenance** page, query for **Manage Key Flexfields** > **Go to Task**.
2. Enter GL# in the **Key Flexfield Code**.
3. **Search**.

4. Click on **Manage Structure Instances**.
5. **Search**.
6. Click on the specific chart of accounts and **Edit** icon.
7. Click on the specific segment and the **Edit** icon.
8. Check the **BI enabled** check box.
9. **Save**. This should be done for all segments in every **Chart of Accounts Structure Instance** that you intend to be mapped in the RPD.
10. **Save and Close** > **Done**.

Populate the **BI Object Name** for each of the **Segment Labels**. This name is the logical table name in the RPD which would be used as the dimension for the corresponding segment. Perform the following steps:

1. From your implementation project or the **Setup and Maintenance** page, query for **Manage Key Flexfields** > **Go to Task**.
2. Enter GL# in the **Key Flexfield Code**.
3. Query for GL# as **Key Flexfield Code** in **Manage Key Flexfields** page.
4. **Search**.
5. **Actions** menu and click on **Manage Segment Labels**.
6. Populate the **BI Object Name** for all the segment labels that must be mapped in the RPD.

Segment Label Code	BI Object Name
FA_COST_CTR	Dim - Cost Center
GL_BALANCING	Dim - Balancing Segment
GL_ACCOUNT	Dim - Natural Account Segment

7. **Save**.

Note: For all the nonqualified segment labels, the **BI Object Name** should be populated with one of the following:

- Dim - GL Segment1
- Dim - GL Segment2
- Dim - GL Segment3
- Dim - GL Segment4
- Dim - GL Segment5
- Dim - GL Segment6
- Dim - GL Segment7
- Dim - GL Segment8
- Dim - GL Segment9
- Dim - GL Segment10

Deploy the flexfield using the **Deploy Flexfield** button from **Manage Key Flexfields** page. For more information about extending both key and descriptive flexfields into Oracle Fusion Transactional BI, refer to Oracle Fusion Transactional Business Intelligence Administrator's Guide.

Manage Accounting Calendars

Defining Accounting Calendars: Critical Choices

Define an accounting calendar to create your accounting year and the periods it contains. Specify common calendar options that the application uses to automatically generate a calendar with its periods. Specifying all the options makes defining a correct calendar easier and more intuitive with fewer errors. The choices you make when specifying the following options are critical, because it is difficult to change your accounting calendar after a period status is set to open or future enterable.

- Budgetary control only
- Start Date
- Period Frequency
- Adjusting Period Frequency
- Period Name Format

Note: In Oracle Fusion, the common calendar types, monthly, weekly, 4-4-5, 4-5-4, 5-4-4, 4-week, quarterly, and yearly, are automatically generated. This functionality makes it easier to create and maintain accounting calendars. By using the period frequency option, you no longer have to go through the tedious task of defining each period manually.

Budgetary Control Only Check Box

Select the check box for Budgetary control only to use the calendar for budgetary control only. Budgetary Control refers to the group of system options and the validation process of determining which transactions are subject to validation against budgets and budget consumption to prevent overspending.

Start Date

If you plan to run translation, specify a calendar start date that is a full year before the start date of the year of the first translation period for your ledger. Translation cannot be run in the first period of a calendar. Consider how many years of history you are going to load from your previous system and back up the start date for those years plus one more. You cannot add previous years once the first calendar period has been opened.

Period Frequency

Use period frequency to set the interval for each subsequent period to occur, for example, monthly, quarterly, or yearly. If you select the period frequency of Other, by default, the application generates the period names, year, and quarter number. You specify the start and end dates. You must manually enter the period information. For example, select the period frequency of Other and enter 52 as the number of periods when you want to define a weekly calendar. For manually entered calendars, when you click the **Add Year** button, the application creates a blank year. Then, you must manually enter the periods for the new year. The online validation helps prevent erroneous entries.

If the year has been defined and validated, use the **Add Year** button to add the next year quickly. Accept or change the new rows as required. For example, with the Other frequency type calendar, dates may differ from what the application generates.

Note: In Oracle Fusion applications a calendar can only have one period frequency and period type. Therefore, if you have an existing calendar with more than one period type associated with it, during the upgrade from Oracle E-Business Suite, separate calendars are created based on each calendar name and period type combination.

Adjusting Period Frequency

Use the adjusting period frequency to control when the application creates adjusting periods. For example, some of the frequencies you select add one adjusting period at year end, two at year end, or one at the end of each quarter. The default is None which adds no adjusting periods. If you select the frequency of Other, the **Number of Adjusting Periods** field is displayed. Enter the number of desired adjusting periods and then, manually define them.

Period Name Format Region

In the Period Name Format region enter the following fields:

- **User-Defined Prefix**: An optional feature that allows you to enter your own prefix. For example, define a weekly calendar and then enter a prefix of Week, - as the separator, and the period name format of Period numberYY fiscal year. The application creates the names of Week1-11, Week2-11, through Week52-11.
- **Format**: A predefined list of values filtered on the selected separator and only displays the options that match the selected separator.
- **Year**: The year displayed in the period names is based on the selected period name format and the dates the period covers or if the period crosses years, on the year of the start date of the period.
  - For example, April 10, 2010 to May 9, 2010 has the period name of Apr-10 and December 10, 2010 to January 9, 2011 has the name of Dec-10.
  - If period frequency is Other, then the period format region is hidden. The application generates a temporary period name for calendars with period frequency of Other, using a fixed format of Period numberYY. You can override this format with your own customized period names.

Note: For an accounting calendar that is associated with a ledger, changing period names or adding a year updates the accounting period dimension in the balances cubes.

Calendar Validation: How It Works with the Accounting Calendar

Calendar validation is automatic and prevents serious problems when you begin using the calendar. Once you set a calendar period status to open or future enterable, you cannot edit the period.

Settings That Affect Calendar Validation

The calendar validation runs automatically when you save the calendar.

How the Calendar Is Validated

The following table lists the validation checks performed when the accounting calendar is saved.

Validation Performed	Example of Data
Unique period number	2 assigned for two periods
Unique period name	Jan-11 entered twice
Period number beyond the maximum number of periods per year	13 for a 12 period calendar with no adjusting periods

Validation Performed	Example of Data
Entered period name contains spaces	Jan 11
Single or double quotes in the period name	Jan '11
Nonadjusting periods with overlapping dates	01-Jan-2011 to 31-Jan-2011 and 30-Jan-2011 to 28-Feb-2011
Period date gaps	01-Jan-2011 to 28-Jan-2011 and 31-Jan-2011 to 28-Feb-2011
Missing period numbers	Periods 1 through 6 defined for a twelve month calendar
Period number gaps	1, 3, 5
Period numbers not in sequential order by date	Period 1 covers 01-Jan-2011 to 31-Jan-2011 and period 2 covers 01-Mar-2011 to 31-Mar-2011, and period 3 covers 01-Feb-2011 to 28-Feb-2011.
Quarter number gaps	1, 3, 4
Quarters not in sequential order by period	1, 3, 2, 4
Period start or end dates more than one year before or after the fiscal year	July 1, 2010 in a 2012 calendar

FAQs for Manage Accounting Calendars

How can I identify errors in my accounting calendar?

Oracle Fusion General Ledger identifies erroneous entries online as you enter a new calendar or change data on an existing calendar. The application also automatically validates the data when you save the calendar.

What's the difference between calendar and fiscal period naming?

The period naming format determines the year that is appended to the prefix for each period in the calendar. For the example, your accounting year has a set of twelve accounting period with:

- Start date of September 1, 2014.
- End date is August 31, 2015.
- Period's date range following the natural calendar month date range.

Calendar period naming format: Select the calendar period format to append the period's start date's year to the prefix. For the period covering September 1, 2014 to December 31, 2014, then 2014 or just 14, depending on the period format selected, is appended to each period's name. For the remaining periods covering January 1, 2015 to August 31, 2015, then 2015 or 15, is appended to each period's name.

Fiscal period naming format: Select the fiscal period format to always append the period's year assignment to the prefix. If the accounting periods in the set of twelve are all assigned the year of 2015, then 2015 or just 15, depending on the period format selected, is appended to the period name of all 12 periods.

When do I update an existing calendar?

Update an existing calendar before the new periods are needed as future periods, based on the future period setting in your accounting configuration. If a complete year has been defined and validated, use the **Add Year** button to add the next year quickly. Accept or change the new rows as required. For example, with the Other frequency type calendar, dates may differ from what the application generates.

What happens if I upgrade my calendar from Oracle E-Business Suite Release 12?

The migration script assigns a period frequency that most closely matches your Oracle E-Business Suite Release 12 calendar. When you use the Oracle Fusion applications Add Year functionality for the first time, you have an opportunity to review and change the period frequency. The Calendar Options page opens only for calendars upgraded from Release 12 to allow one time modification.

Make your changes to the period frequency, adjusting period frequency, and period name format, including the prefix and separator, as needed. Changes can not conflict with the existing upgraded calendar definition. Update the calendar name and description in the calendar header, as needed, for all calendars. Period details for a new year will be generated automatically based on the latest calendar options. You can also manually update the calendar. The modified calendar options affect future years only.

Manage Primary Ledgers

Accounting Configuration Offerings: Overview

The Setup and Maintenance work area in the Oracle Fusion Applications is used to manage the configuration of legal entities, ledgers, and reporting currencies. To create a legal entity or ledger, first create an implementation project. This implementation project can be populated by either adding a financials related offering or one or more task lists.

> **Note:** Setup tasks that are not related to the ledger or legal entity setup tasks are opened from either an implementation project or directly from the Setup and Maintenance work area.

The financial applications have two predefined implementations:

- The Oracle Fusion Accounting Hub offering: Used to add the Oracle Fusion General Ledger and Oracle Fusion Subledger Accounting application features to an existing enterprise resource planning (ERP) system to enhance the reporting and analysis.
- The Oracle Fusion Financials offering includes the Oracle Fusion General Ledger and Oracle Fusion Subledger Accounting application features and one or more subledger financial applications.

When adding an offering to an implementation project, customize the tasks displayed by adding additional tasks.

Related Topics

- What's an implementation project?
- What's a functional area?
- What's an offering?

Ledgers and Subledgers: Explained

Oracle Fusion Applications reflect the traditional segregation between the general ledger and associated subledgers. Detailed transactional information is captured in the subledgers and periodically imported and posted in summary or detail to the ledger.

A ledger determines the currency, chart of accounts, accounting calendar, ledger processing options, and accounting method for its associated subledgers. Each accounting setup requires a primary ledger and optionally, one or more secondary ledgers and reporting currencies. Reporting currencies are associated with either a primary or secondary ledger.

The number of ledgers and subledgers is unlimited and determined by your business structure and reporting requirements.

Single Ledger

If your subsidiaries all share the same ledger with the parent company or they share the same chart of accounts and calendar, and all reside on the same applications instance, you can consolidate financial results in Oracle Fusion General Ledger in a single ledger. Use Oracle Fusion Financial Reporting functionality to produce individual entity reports by balancing segments. General Ledger has three balancing segments that can be combined to provide detailed reporting for each legal entity and then rolled up to provide consolidated financial statements.

Multiple Ledgers

Accounting operations using multiple ledgers can include single or multiple applications instances. You need multiple ledgers if one of the following is true:

- You have companies that require different account structures to record information about transactions and balances. For example, one company may require a six-segment account, while another needs only a three-segment account structure.
- You have companies that use different accounting calendars. For example, although companies may share fiscal year calendars, your retail operations require a weekly calendar, and a monthly calendar is required for your corporate headquarters.
- You have companies that require different functional currencies. Consider the business activities and reporting requirements of each company. If you must present financial statements in another country and currency, consider the accounting principles to which you must adhere.

Subledgers

Oracle Fusion Subledgers capture detailed transactional information, such as supplier invoices, customer payments, and asset acquisitions. Oracle Fusion Subledger Accounting is an open and flexible application that defines the accounting rules, generates detailed journal entries for these subledger transactions, and posts these entries to the general ledger with flexible summarization options to provide a clear audit trail.

Ledgers: Points to Consider

Companies account for themselves in primary ledgers, and, if necessary, secondary ledgers and reporting currencies. Transactions from your subledgers are posted to your primary ledgers and possibly, secondary ledgers or reporting currencies based on balance, subledger, or journal level settings. Local and corporate compliance can be achieved through an optional secondary ledger. Provide an alternate accounting method, or in some cases, a different chart of accounts. Your subsidiary's primary and secondary ledgers can both be maintained in your local currency. You can convert your local currency to your parent's ledger currency to report your consolidated financial results using reporting currencies or translation.

Primary Ledgers

A primary ledger:

- Is the main record-keeping ledger.
- Records transactional balances by using a chart of accounts with a consistent calendar and currency, and accounting rules implemented in an accounting method..
- Is closely associated with the subledger transactions and provides context and accounting for them.

To determine the number of primary ledgers, your enterprise structure analysis must begin with your financial, legal, and management reporting requirements. For example, if your company has separate subsidiaries in several countries worldwide, enable reporting for each country's legal authorities by creating multiple primary ledgers that represent each country with the local currency, chart of accounts, calendar, and accounting method. Use reporting currencies linked to your country-specific primary ledgers to report to your parent company from your foreign subsidiaries. Other considerations that affect the number of primary ledgers required are:

- Corporate year end
- Ownership percentages
- Local government regulations and taxation
- Secondary ledgers

Secondary Ledgers

A secondary ledger:

- Is an optional ledger linked to a primary ledger for the purpose of tracking alternative accounting.
- Can differ from its primary ledger by using a different accounting method, chart of accounts, accounting calendar, currency, or processing options.

When you set up a secondary ledger using the Manage Secondary Ledger task, you select a data conversion level. The data conversion level determines what level of information is copied to the secondary ledger. You can select one of the following levels: **Balance**, **Journal**, **Subledger**, or **Adjustment Only**.

- **Balance**: When you run the Transfer Balances to Secondary Ledger process, balances are transferred from the primary ledger to the secondary ledger.
- **Journal**: When you post journals in the primary ledger, the posting process copies the journals to the secondary ledger for the sources and categories that you specify in the Journal Conversion Rules section on the Map Primary to Secondary Ledger page.
  In the Journal Conversion Rules section, you can do one of the following:
  - Accept the default setting of **Yes** for the journal source and category combination of **Other**, and then specify the source and category combinations to exclude from the conversion.
  - Set the journal source and category combination of **Other** to **No**, and then specify the source and category combinations to include in the conversion.
- **Subledger**: When you generate accounting in the primary ledger, the Create Accounting process produces accounting for both the primary and secondary ledgers. When you post journals in the primary ledger, the posting process copies the journals to the secondary ledger for the sources and categories that you specify in the Journal Conversion Rules section on the Map Primary to Secondary Ledger page.

  Caution: Ensure you have journal conversion rules that exclude your subledgers, otherwise your subledger data is copied to the secondary ledger twice, once by the Create Accounting process, and once by posting.

- **Adjustment Only**: This level is an incomplete accounting representation that holds only adjustments. The adjustments can be manual adjustments or automated adjustments from subledger accounting. This type of secondary ledger must share the same chart of accounts, accounting calendar, period type, and currency as the associated primary ledger.

Tip: To obtain a complete secondary accounting representation that includes both transactional data and adjustments, use ledger sets to combine the ledgers when running reports.

Example

Your primary ledger uses US Generally Accepted Accounting Principles (GAAP) and you maintain a secondary ledger for International Financial Reporting Standards (IFRS) accounting requirements. You first decide to use the subledger conversion level for the IFRS secondary ledger. However, since most of the accounting between US GAAP and IFRS is identical, the adjustment only level is the better solution for the secondary ledger. The subledger level requires duplication of most subledger and general ledger journal entries and general ledger balances. The adjustment only level transfers only the adjustment journal entries and balances necessary to convert your US GAAP accounting to the IFRS accounting. Thus, requiring less processing resources.

Tip: To avoid difficult reconciliations, use the same currency for primary and secondary ledgers. Use reporting currencies or translations to generate the different currency views to comply with internal reporting needs and consolidations.

Reporting Currencies

Reporting currencies maintain and report accounting transactions in additional currencies. Consider the following before deciding to use reporting currencies.

- Each primary and secondary ledger is defined with a ledger currency that is used to record your business transactions and accounting data for that ledger.
- Best practices recommend that you maintain the ledger in the currency in which the majority of its transactions are denominated. For example, create, record, and close a transaction in the same currency to save processing and reconciliation time.
- Compliance, such as paying local transaction taxes, is also easier using a local currency.
- Many countries require that your accounting records be kept in their national currency.

If you maintain and report accounting records in different currencies, you do this by defining one or more reporting currencies for the ledger. When you set up a reporting currency using the Manage Reporting Currency task, you select a currency conversion level. The currency conversion level determines what level of information is copied to the reporting currency.

You can select one of the following levels: **Balance**, **Journal**, **Subledger**.

- **Balance**: When you run the Translate General Ledger Account Balances process, balances are transferred from the specified ledger to the reporting currency and converted.
- **Journal**: When you post journals, the posting process copies the journals to the reporting currency for the sources and categories that you specify in the Journal Conversion Rules section on the Create or Edit Reporting Currency pages.

  In the Journal Conversion Rules section, you can do one of the following:

  - Accept the default setting of **Yes** for the journal source and category combination of **Other**, and then specify the source and category combinations to exclude from the conversion.

  - Set the journal source and category combination of **Other** to **No**, and then specify the source and category combinations to include in the conversion.

- **Subledger**: When you generate accounting in the primary ledger, the Create Accounting process produces accounting for both the primary ledger and the reporting currency. When you post the journals in the primary ledger, the posting process copies the journals to the reporting currency for the sources and categories that you specify in the Journal Conversion Rules section on the Create or Edit Reporting Currency pages.

  Caution: Ensure you have journal conversion rules that exclude your subledgers, otherwise your subledger data is copied to the reporting currency twice, once by the Create Accounting process, and once by posting.

Note: A full accounting representation of your primary ledger is maintained in any subledger level reporting currency. Secondary ledgers cannot use subledger level reporting currencies.

Do not use journal or subledger level reporting currencies if your organization translates your financial statements to your parent company's currency for consolidation purposes infrequently. Standard translation functionality meets this need. Consider using journal or subledger level reporting currencies when any of the following conditions exist.

- You operate in a country whose unstable currency makes it unsuitable for managing your business. As a consequence, you manage your business in a more stable currency while retaining the ability to report in the unstable local currency.
- You operate in a country that is part of the European Economic and Monetary Union (EMU), and you select to account and report in both the European Union currency and your National Currency Unit (NCU).

Note: The second option is rare since most companies have moved beyond the initial conversion to the EMU currency. However, future decisions could add other countries to the EMU, and then, this option would again be used during the conversion stage.

Related Topics

- Reporting Currency Balances: How They Are Calculated

Financial Ledgers: How They Fit Together

Oracle Fusion Applications is an integrated suite of business applications that connects and automates the entire flow of the business process across both front and back office operations and addresses the needs of a global enterprise. The process of designing the enterprise structure, including the accounting configuration, is the starting point for an implementation. This process often includes determining financial, legal, and management reporting requirements, setting up primary and secondary ledgers, making currency choices, and examining consolidation considerations.

This figure shows the enterprise structure components and their relationships to each other. Primary ledgers are connected to reporting currencies and secondary ledgers to provide complete reporting options. Legal entities are assigned to ledgers,

both primary and secondary, and balancing segments are assigned to legal entities. Business units must be connected to both a primary ledger and a default legal entity. Business units can record transactions across legal entities.

Primary Ledgers

A primary ledger is the main record-keeping ledger. Create a primary ledger by combining a chart of accounts, accounting calendar, ledger currency, and accounting method. To determine the number of primary ledgers, your enterprise structure analysis must begin with determining financial, legal, and management reporting requirements. For example, if your company has separate subsidiaries in several countries worldwide, create multiple primary ledgers representing each country with the local currency, chart of accounts, calendar, and accounting method to enable reporting to each country's legal authorities.

If your company just has sales in different countries, with all results being managed by the corporate headquarters, create one primary ledger with multiple balancing segment values to represent each legal entity. Use secondary ledgers or reporting currencies to meet your local reporting requirements, as needed. Limiting the number of primary ledgers simplifies reporting because consolidation is not required. Other consideration such as corporate year end, ownership considerations, and local government regulations, also affect the number of primary ledgers required.

Secondary Ledgers

A secondary ledger is an optional ledger linked to a primary ledger. A secondary ledger can differ from its related primary ledger in chart of accounts, accounting calendar, currency, accounting method, or ledger processing options. Reporting requirements, for example, that require a different accounting representation to comply with international or country-specific regulations, create the need for a secondary ledger.

Below are scenarios and required action for different components in primary and secondary ledgers:

- If the primary and secondary ledgers use different charts of accounts, the chart of accounts mapping is required to instruct the system how to propagate journals from the source chart of accounts to the target chart of accounts.
- If the primary and secondary ledgers use different accounting calendars, the accounting date and the general ledger date mapping table will be used to determine the corresponding non-adjusting period in the secondary ledger. The date mapping table also provides the correlation between dates and non-adjusting periods for each accounting calendar.
- If the primary ledger and secondary ledger use different ledger currencies, currency conversion rules are required to instruct the system on how to convert the transactions, journals, or balances from the source representation to the secondary ledger.

Note: Journal conversion rules, based on the journal source and category, are required to provide instructions on how to propagate journals and types of journals from the source ledger to the secondary ledger.

Reporting Currencies

Reporting currencies are the currency you use for financial, legal, and management reporting. If your reporting currency is not the same as your ledger currency, you can use the foreign currency translation process or reporting currencies functionality to convert your ledger account balances in your reporting currency. Currency conversion rules are required to instruct the system on how to convert the transactions, journals, or balances from the source representation to the reporting currency.

Legal Entities

Legal entities are discrete business units characterized by the legal environment in which they operate. The legal environment dictates how the legal entity should perform its financial, legal, and management reporting. Legal entities generally have the right to own property and the obligation to comply with labor laws for their country. They also have the responsibility to account for themselves and present financial statements and reports to company regulators, taxation authorities, and other stakeholders according to rules specified in the relevant legislation and applicable accounting standards. During setup, legal entities are assigned to the accounting configuration, which includes all ledgers, primary and secondary.

Balancing Segments

You assign primary balancing segment values to all legal entities before assigning values to the ledger. Then, assign specific primary balancing segment values to the primary and secondary ledgers to represent nonlegal entity related transactions such as adjustments. You can assign any primary balancing segment value that has not already been assigned to a legal entity. You are allowed to assign the same primary balancing segment values to more than one ledger. The assignment of primary balancing segment values to legal entities and ledgers is performed within the context of a single accounting setup. The Balancing Segment Value Assignments report is available to show all primary balancing segment values assigned to legal entities and ledgers across accounting setups to ensure the completeness and accuracy of their assignments. This report allows you to quickly identify these errors and view any unassigned values.

Business Units

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. When a business function produces financial transactions, a business unit must be assigned a primary ledger, and a default legal entity. Each business unit can post transactions to a single primary ledger, but it can process transactions for

many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. You define business units as separate task generally done after the accounting setups steps.

The business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Enables sharing of sets of reference data across applications

For example, if your company requires business unit managers to be responsible for managing all aspects of their part of the business, then consider using two balancing segments, company and business unit to enable the production of business unit level balance sheets and income statements.

Transactions are exclusive to business units. In other words, you can use business unit as a securing mechanism for transactions. For example, if you have an export business that you run differently from your domestic business, use business units to secure members of the export business from seeing the transactions of the domestic business.

Creating Primary Ledgers: Example

Create a primary ledger as your main record-keeping ledger. Like any other ledger, a primary ledger records transactional balances by using a chart of accounts with a calendar, currency, and accounting rules implemented in an accounting method. The primary ledger is closely associated with the subledger transactions and provides context and accounting for them.

Scenario

Your company, InFusion Corporation is implementing Oracle Fusion Applications. You have been assigned the task of creating a primary ledger for your InFusion America entity.

1. **Navigator** > **Define Accounting Configurations** > **Manage Primary Ledgers** > **Go to Task**.
2. Click the **Create** icon.
3. Enter the following values:

Field	Value
Name	InFusion America
Description	InFusion America primary ledger for recording transactions.
Chart of Accounts	InFusion America Chart of Accounts
Accounting Calendar	Standard Monthly
Currency	USD
Accounting Method	Standard Accrual

4. Click **Save and Edit Task List** to navigate back to the accounting configuration task list.

Note: You cannot change the chart of accounts, accounting calendar, or currency for your ledger after you save your ledger.

Specify Ledger Options

Specifying Ledger Options: Worked Example

This example demonstrates specifying the ledger options for your primary ledger. Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion has purchased an Oracle Fusion Enterprise Resource Planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers.

After completing your InFusion America Primary Ledger, select **Specify Ledger Options** under the Define Accounting Configuration task list on the Functional Setup Manager page.

Note: Both primary and secondary ledgers are created in the same way and use the same user interface to enable their specific ledger options.

Reviewing General Region Options

1. Accept the **Name** and **Description** defaults for the ledger selected.
2. Review the **Currency** and **Chart of Accounts** for the specified ledger, which are automatically populated.

Setting Accounting Calendar Region Options

1. Review the **Accounting Calendar** that defaults from your ledger.
2. Select Jan-2011 as the **First Open Period** for your ledger.

   Select a period after the first defined period in the ledger calendar to enable running translation. You cannot run translation in the first defined period of a ledger calendar. In this example, your calendar began with Jan-2010.
3. Enter 3 for the **Number of Future Enterable Periods**.

   Any value between 0 and 999 periods can be specified to permit entering journals but not posting them in future periods. Minimize the number of open and future periods to prevent entry in the wrong period.

Selecting the Subledger Accounting Region Options

1. Accept the default **Accounting Method** from your ledger.
2. Select US American English as your **Journal Language**.

Completing the Period Close Region Options

1. Enter your **Retained Earnings Account**: 101-00-31330000-0000-000-0000-0000.

   This account is required for general ledger to move the revenue and expense account balances to this account at the end of the accounting year.
2. Enter your **Cumulative Translation Adjustment Account**: 101-00-31350000-0000-000-0000-0000.

   The Cumulative Translation Adjustment (CTA) account is required for ledgers running translation.

3. Do not enter a **Default Period End Rate Type** or **Default Period Average Rate Type**.

   The values entered here are used as the default for balance level reporting currency processing. InFusion America Primary Ledger is using the subledger level reporting currency processing.

Specifying the Journal Processing Region Options

1. Specify the Balance options as outlined in the following table.

Option	Setting
Enable Suspense	General Ledger
Default Suspense Account	101-00-98199999-0000-000-0000-0000
Rounding Account	101-10-98189999-0000-000-0000-0000
Entered Currency Balancing Account	101-10-98179999-0000-000-0000-0000
Balancing Threshold Percent	10

2. Click all the following Entry options listed in the table.

Option	Description
Enable journal approval	Click to enable journal approval functionality. Approval rules must be created in the Oracle Fusion Approvals Management (AMX).
Notify when prior period journal	Notify the user when a prior period date is selected on a journal entry.
Allow mixed and statistical journals	Enter both monetary and statistical amounts on the same line in a journal entry.
Validate reference date	Requires a reference date in an open or future enterable period.

3. Click the **Separate journals by accounting date during journal import** for the Import option to create individual journal entries for each accounting date.
4. For the Reversal options, select InFusion America Accrual Set from the list of values in the **Journal Reversal Criteria Set** field and click the **Launch AutoReverse after open period** to reverse accrual journal entries automatically when a new period is opened.
5. Click the **Enable intercompany accounting** for the Intercompany option to enable automatic balancing for primary, second, and third balancing segments) on intercompany journals and transactions.

   To complete the intercompany accounting functionality, you must define intercompany rules.

Related Topics

- What happens if I change the retained earnings account?
- What happens if I change the cumulative adjustment account?
- Journal Posting Process: How Single Currency Journals Are Balanced

- Journal Posting Process: How Multicurrency Journals Are Balanced

Assigning Legal Entities and Balancing Segments: Examples

Optionally, assign legal entities and balancing segments to your accounting configuration.

Assign Legal Entities

Assign one or more legal entities to your configuration by following these steps:

1. **Navigator** > **Setup and Maintenance** work area > **Define Ledgers** > **Define Accounting Configurations** > **Assign Legal Entities** task.
2. If scope is:
   - Not set: **Select Scope** link > **Assign Legal Entities** radio button > In the Primary Ledger drop down **Select and Add** > **Apply and Go To Task** > Select your ledger > **Save and Close**.
   - Set, click **Go to Task**
3. Click the **Select and Add** icon.
4. Enter your legal entity.
5. **Apply** > **Done**.
6. **Save and Close**.

Assign Balancing Segments to Legal Entities

Assign balancing segment values to your legal entities by following these steps:

1. **Navigator** > **Setup and Maintenance** work area > **Define Ledgers** > **Define Accounting Configurations** > **Assign Balancing Segment Values to Legal Entities** task.
2. If scope is:
   - Not set: **Select Scope** link > **Assign Balancing Segment Values to Legal Entities** radio button > In the Primary Ledger drop down **Select and Add** > **Apply and Go To Task** > Select your ledger > **Save and Close**.
   - Set, click **Go to Task**.
3. Click the **Create** icon.
4. Select the balancing segment value. Optionally, add a Start Date.
5. **Save and Close** to close the create page.
6. **Save and Close**.

Assign Balancing Segments to Ledgers

Assign balancing segment values directly to your ledger by following these steps:

1. **Navigator** > **Setup and Maintenance** work area > **Define Ledgers** > **Define Accounting Configurations** > **Assign Balancing Segment Value to Ledger** task.
2. If scope is:
   - Not set: **Select Scope** link > **Assign Balancing Segment Value to Ledger** radio button > In the Primary Ledger drop down **Select and Add** > **Apply and Go To Task** > Select your ledger > **Save and Close**.
   - Set, click **Go to Task**.
3. Select the balancing segment value.

4. Optionally enter a start date.
5. **Save and Close**.

Note: The balancing segment values that are assigned to the ledger represent nonlegal entity transactions, such as adjustments. If you use legal entities, you must assign balancing segment values to all legal entities before assigning values to the ledger. The only available balancing segment values that can be assigned to ledgers are those not assigned to legal entities.

6 Define Organizational Structures

Manage Business Units

Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it has a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy.

In Oracle Fusion Applications you do the following:

- Assign your business units to one primary ledger. For example, if a business unit is processing payables invoices, then it must post to a particular ledger. This assignment is required for your business units with business functions that produce financial transactions.
- Use a business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, then secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model provides the following advantages:

- Enables flexible implementation
- Provides consistent entity that controls and reports on transactions
- Shares sets of reference data across applications

Business units process transactions using reference data sets that reflect your business rules and policies and can differ from country to country. With Oracle Fusion Application functionality, you can share reference data, such as payment terms and transaction types, across business units, or you can have each business unit manage its own set depending on the level at which you want to enforce common policies.

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your legal entities to ensure the uniqueness of sequencing.

In summary, use business units for:

- Management reporting
- Transaction processing
- Transactional data security
- Reference data sharing and definition

Brief Overview of Business Unit Security

A number of Oracle Fusion Applications use business units to implement data security. You assign roles like Accounts Payable Manager to users to permit them to perform specific functions, and you assign business units for each role to users to give them access to data in those business units. For example, users which have been assigned a Payables role for a particular business unit, can perform the function of payables invoicing on the data in that business unit. Roles can

be assigned to users manually using the Security Console, or automatically using provisioning rules. Business Units can be assigned to users using the Manage Data Access for Users task in Setup and Maintenance.

Related Topics

- Reference Data Sets and Sharing Methods: Explained

Assign Business Unit Business Function

Business Functions: Explained

A business unit can perform many business functions in Oracle Fusion Applications.

Business Functions

A business function represents a business process, or an activity that can be performed by people working within a business unit and describes how a business unit is used. The following business functions exist in Oracle Fusion applications:

- Billing and revenue management
- Collections management
- Customer contract management
- Customer payments
- Expense management
- Incentive compensation
- Marketing
- Materials management
- Inventory management
- Order fulfillment orchestration
- Payables invoicing
- Payables payments
- Procurement
- Procurement contract management
- Project accounting
- Receiving
- Requisitioning
- Sales

Although there is no relationship implemented in Oracle Fusion Applications, a business function logically indicates a presence of a department in the business unit with people performing tasks associated with these business functions. A business unit can have many departments performing various business functions. Optionally, you can define a hierarchy of divisions, business units, and departments as a tree over HCM organization units to represent your enterprise structure.

Note: This hierarchy definition is not required in the setup of your applications, but is a recommended best practice.

Your enterprise procedures can require a manager of a business unit to have responsibility for their profit and loss statement. In such cases, any segment that allows the identification of associated revenue and costs can be used as a profit center identification. The segment can be qualified as a cost center segment.

However, there are cases where a business unit is performing only general and administrative functions, in which case your manager's financial goals are limited to cost containment or recovering of service costs. For example, if a shared service center at the corporate office provides services for more commercially-oriented business units, it does not show a profit and therefore, only tracks its costs.

In other cases, where your managers have a responsibility for the assets of the business unit, a balance sheet can be produced. The recommended best practice to produce a balance sheet is to setup the business unit as a balancing segment in the chart of accounts. The business unit balancing segment can roll up to divisions or other entities to represent your enterprise structure.

When a business function produces financial transactions, a business unit must be assigned to a primary ledger, and a default legal entity. Each business unit can post transactions to a single primary ledger, but it can process transactions for many legal entities.

The following business functions generate financial transactions and will require a primary ledger and a default legal entity:

- Billing and revenue management
- Collections management
- Customer payments
- Expense management
- Materials management
- Payables invoicing
- Project accounting
- Receiving
- Requisitioning

Business Unit Hierarchy: Example

For example, your InFusion America Company provides:

- Air quality monitoring systems through your division InFusion Air Systems
- Customer financing through your division InFusion Financial Services

The InFusion Air Systems division further segments your business into the System Components and Installation Services subdivisions. Your subdivisions are divided by business units:

- System Components by products: Air Compressors and Air Transmission

- Installation Services by services: Electrical and Mechanical

Oracle Fusion applications facilitates independent balance sheet rollups for legal and management reporting by offering up to three balancing segments. Hierarchies created using the management segment can provide the divisional results. For example, it is possible to define management segment values to correspond to business units, and arrange them in a hierarchy where the higher nodes correspond to divisions and subdivisions, as in the Infusion US Division example above.

Manage Divisions

Divisions: Explained

Managing multiple businesses requires that you segregate them by their strategic objectives and measure their results.

Responsibility to reach objectives can be delegated along the management structure. Although related to your legal structure, the business organizational hierarchies do not reflect directly the legal structure of the enterprise. The management entities and structure can include:

- Divisions and subdivisions
- Lines of business
- Other strategic business units
- Their own revenue and cost centers

These organizations can be included in many alternative hierarchies and used for reporting, as long as they have representation in the chart of accounts.

Divisions

A division refers to a business-oriented subdivision within an enterprise, in which each division organizes itself differently to deliver products and services or address different markets. A division can operate in one or more countries, and can be many companies or parts of different companies that are represented by business units.

A division is a profit center or grouping of profit and cost centers, where the division manager is responsible for achieving business goals including profits. A division can be responsible for a share of the company's existing product lines or for a separate business. Managers of divisions may also have return on investment goals requiring tracking of the assets and liabilities of the division. The division manager generally reports to a top corporate executive.

By definition a division can be represented in the chart of accounts. Companies can use product lines, brands, or geographies as their divisions: their choice represents the primary organizing principle of the enterprise. This may coincide with the management segment used in segment reporting.

Oracle Fusion Applications supports a qualified management segment and recommends that you use this segment to represent your hierarchy of business units and divisions. If managers of divisions have return on investment goals, make the management segment a balancing segment. Oracle Fusion applications permit up to three balancing segments. The values of the management segment can be business units that roll up in a hierarchy to report by division.

Historically, divisions were implemented as a node in a hierarchy of segment values. For example, Oracle E-Business Suite has only one balancing segment, and often the division and legal entity are combined into a single segment where each value stands for both division and legal entity.

Use of Divisions in Oracle Fusion Human Capital Management (HCM)

Divisions are used in HCM to define the management organization hierarchy, using the generic organization hierarchy. This hierarchy can be used to create organization-based security profiles.

Adding a New Division After Acquiring a Company: Example

This example describes how you can restructure your enterprise after acquiring a new division.

Scenario

You are part of a senior management team at InFusion Corporation. InFusion is a global company with organizations in the following countries:

- United States (US)
- United Kingdom (UK)
- France
- China
- Saudi Arabia
- United Arab Emirates (UAE)

The company's main area of business is in the high tech industry, and it recently acquired a new company. You must analyze the company's current enterprise structure and determine the new organizations to create in the new company.

Details of the Acquired Company

The acquired company is a Financial Services business based in Germany. The Financial Services business differs significantly from the high tech business. Therefore, you want to keep the Financial Services company as a separate business with all the costs and reporting managed by the Financial Services division.

Analysis

The following table summarizes the key decisions that you must consider when determining what new organizations to set up and how to structure the enterprise.

Decision to Consider	In This Example
Create location?	The Financial Services company and its departments are based in Frankfurt. Therefore, you only have to create one location.
Create separate division?	Yes. Although the new division will exist in the current enterprise structure, you want to keep the Financial Services company as a separate line of business. By creating a separate division, you can manage the costs and reporting separately from the InFusion Corporation. Additionally you don't have to modify any organizations in the enterprise setup.
Create business unit?	Yes. The Financial Services business requires you to create several jobs that don't exist in your high tech business. You can segregate the jobs that are specific to financial services in a new business unit.
How many departments?	The Financial Services company currently has departments for sales, accounting, and marketing. As you have no plans to downsize or change the company, you can create three departments to retain the structure.
How many cost centers?	Although you can have multiple cost centers to track the department costs, you decide to create one cost center for each department.
How many legal entities?	Define a legal entity for each registered company or some other entity recognized by law. Using the legal entity, you can: • Record assets • Record liabilities • Record income • Pay transaction taxes • Perform intercompany trading In this case, you only need one legal entity. You must define the legal entity as a legal employer and payroll statutory unit. As the new division operates only from Germany, you can configure the legal entity to suit Germany's legal and statutory requirements. **Note:** You can identify the legal entity as a payroll statutory unit. When you do so, the application transfers the legal reporting unit associated with the legal entity to Oracle Fusion HCM as a tax reporting unit.

Decision to Consider	In This Example
Create legislative data group?	Yes. Because you currently don't employ or pay people in Germany, you must create one legislative data group to run payroll for the workers in Germany.

Resulting InFusion Enterprise Structure

Based on the analysis, you must create the following:

- One new division
- One new location
- Three new departments
- Three new cost centers
- One new legal entity
- One new legislative data group

The following figure illustrates the structure of InFusion Corporation after adding the new division and the other organizations.

Manage Departments

Cost Centers and Departments: Explained

The two important components to be considered in designing your enterprise structure are cost centers and departments.

A cost center represents the smallest segment of an organization for which you collect and report costs. A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager and has one or more workers assigned to it.

Cost Centers

A cost center represents the destination or function of an expense rather than the nature of the expense which is represented by the natural account. For example, a sales cost center indicates that the expense goes to the sales department.

A cost center is generally attached to a single legal entity. To identify the cost centers within a chart of accounts structure use one of these two methods:

- Assign a cost center value in the value set for each cost center. For example, assign cost center values of PL04 and G3J1 to your manufacturing teams in the US and India. These unique cost center values allow easy aggregation of cost centers in hierarchies (trees) even if the cost centers are in different ledgers. However, this approach requires defining more cost center values.
- Assign a balancing segment value with a standardized cost center value to create a combination of segment values to represent the cost center. For example, assign the balancing segment values of 001 and 013 with cost center PL04 to represent your manufacturing teams in the US and India. This creates 001-PL04 and 013-PL04 as the cost center reporting values. The cost center value of PL04 has a consistent meaning. This method requires fewer cost center values to be defined. However, it prevents construction of cost center hierarchies using trees where only cost center values are used to report results for a single legal entity. You must specify a balancing segment value in combination with the cost center values to report on a single legal entity.

Departments

A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager. For example, although the manager may change, the objectives do not change. Departments have one or more workers assigned to them.

A manager of a department is typically responsible for:

- Controlling costs within their budget
- Tracking assets used by their department
- Managing employees, their assignments, and compensation

The manager of a sales department may also be responsible for meeting the revenue targets.

The financial performance of departments is generally tracked through one or more cost centers. In Oracle Fusion Applications, departments are defined and classified as Department organizations. Oracle Fusion Human Capital Management (HCM) assigns workers to departments, and tracks the headcount at the departmental level.

The granularity of cost centers and their relationship to departments varies across implementations. Cost center and department configuration may be unrelated, identical, or consist of many cost centers tracking the costs of one department.

Department Classifications: Points to Consider

A department can be classified as a project organization, sales and marketing organization, or cost organization.

Oracle Fusion Human Capital Management (HCM) uses trees to model organization hierarchies. It provides predefined tree structures for department and other organizational hierarchies that can include organizations with any classification.

Project Organization

Classify departments as a project owning organization to enable associating them with projects or tasks. The project association is one of the key drivers for project access security.

In addition, you must classify departments as project expenditure organizations to enable associating them to project expenditure items. Both project owning organizations and project expenditure organizations can be used by Oracle Fusion

Subledger Accounting to derive accounts for posting Oracle Fusion Projects accounting entries to Oracle Fusion General Ledger.

Sales and Marketing Organization

In Oracle Sales Cloud, you can define sales and marketing organizations. Sales organization hierarchies are used to report and forecast sales results. Salespeople are defined as resources assigned to these organizations.

In some enterprises, the HCM departments and hierarchies correspond to sales organizations and hierarchies. Examining the decision on how to model sales hierarchies in relationship to department hierarchies when implementing Customer Relationship Management to eliminate any possible redundancy in the definition of the organizations is important.

The following figure illustrates a management hierarchy, in which the System Components Division tracks its expenses in two cost centers, Air Compressors and Air Transmission. At the department level, two organizations with a classification of Department are defined, the Marketing Department and Sales Department. These two departments can be also identified as a Resource Organizations, which enable assigning resources, such as salespeople, and other Oracle Sales Cloud specific information to them. Each department is represented in the chart of accounts by more than one cost center, enabling granular as well as hierarchical reporting.

Cost Organization

Oracle Fusion Costing uses a cost organization to represent a single physical inventory facility or group of inventory storage centers, for example, inventory organizations. This cost organization can roll up to a manager with responsibility for the cost center in the financial reports.

A cost organization can represent a costing department. Consider this relationship when determining the setup of departments in HCM. No system dependencies are required for these two entities, cost organization and costing department, to be set up in the same way.

Manage Department and Organization Trees

Trees: Overview

Trees are hierarchical data models that you can use to organize data, apply business rules, control data access, and improve performance while querying. For example, an application maintains data of an organization called Vision Corporation that has two departments: Marketing and Finance. The Finance department has two functional divisions: Receivables and Payables. You can define a tree for Vision Corporation to establish a hierarchy across its departments, and their respective functional divisions. You can use the hierarchy to manage data at various levels of the organization.

In the Setup and Maintenance work area, search for and use the Manage Trees and Tree Versions task to organize data into hierarchies.

Tree Structures

As the name suggests, tree structures provide you the framework to organize data such that you can establish a hierarchy for use by the tree. So, similar to a template, a tree structure guides the creation of a tree.

Tree

A tree is an instance of the tree structure. The root node is the topmost nodal point of a tree. Child nodes branch off from the root node. Child nodes at the same level, branching off from a common parent node, are called siblings. Leaves are details branching off from a node but not extending further down the tree hierarchy. You can create trees for multiple data sources and share them across applications.

Tree Versions

A tree by default has only one version. If required, you can create and maintain more than one editable tree version. At any point, only one tree version must be active. If you edit an existing version, it changes from active to draft. To use it again, you must set it to active. Similar to any other version control system, versions of trees are maintained to track all the changes that a tree undergoes in its life cycle.

Tree Labels

Tree labels are short names given to trees and tree structures. You can label the tree versions for better accessibility and information retrieval. When nodes are created in a tree, the existing tree labels are automatically assigned to the new tree nodes. You can use any table to store the labels and register the label data source with the tree structure.

In the Setup and Maintenance work area, search for and use the following tasks to work with trees:

- Manage Tree Structures: To create and update tree structures. You must first define a tree structure to create a tree.
- Manage Trees and Tree Versions: To create and update trees and their versions.
- Manage Tree Labels: To create and update tree labels.

Related Topics

- Tree Labels: Explained

Tree Structures: Explained

A tree structure defines the hierarchy for creating trees and prescribes rules based on which trees are created, versioned, and accessed. You can associate multiple data sources with a tree structure. A tree is an instance of this hierarchy. Every tree structure can contain one or more trees.

You can create tree structures specific to an application but you can share tree structures across applications. If you apply version control to the tree structure, it is carried over to the trees that are based on the tree structure. Each tree version contains at least one root node. Occasionally, a tree version may have more than one root node.

An administrator controls the access to tree structures through a set of rules that are periodically audited for validity.

Tree Structure Definition: Points to Consider

While creating a tree structure, you must specify important details on the Create Tree Structure: Specify Definition page. As the source of the tree structure, you may either select the predefined tree structures and proceed with the definition or create custom tree structures.

Tree Node Selection

The data in **Tree Node** table maps to the data in nodes of the tree structure. You must select the correct and most appropriate tree node table to define the tree structure, based on which you establish the tree hierarchy. This selection also affects the level of security that is set on a tree node and its child entities.

Tree Sharing Mode

Use the following options to determine the mode of sharing a tree structure across the applications.

- Open: Indicates that the tree is associated with all reference data sets.
- Set ID: Indicates that the tree is associated with a specific reference data set.

Customization

You can customize the predefined tree structures as well as those you create. However, customizing a predefined tree structure is restricted and permitted through additional privileges. Customization is limited to specific tree nodes and below in the tree hierarchy.

Multiple Tree Versions

Although multiple tree versions can exist together, Oracle recommends only one version be active at any given time. However, if required, you can have more tree versions to be in the active state for the same date range. You can use this flexibility to select the tree version you want to implement.

Managing Tree Structures: Points to Consider

You can create, edit, and delete tree structures. You can also change the status of a tree structure and audit the changes.

Creating and Editing Tree Structures

When you edit an active tree structure, the status of the tree structure and all associated trees and their versions changes to draft. To reuse a tree structure, create a copy of the tree without copying the associated trees and tree versions. After

making changes, set the status again to active. If you delete a tree structure, all the associated trees and tree versions are automatically deleted.

For information about working with the offering-specific predefined tree structures, refer to the relevant product documentation.

Status

When you change the status of a tree structure, the status of the trees and tree versions associated with that tree structure also changes.

The following table lists the different statuses of a tree structure.

Status	Meaning
Draft	In a modified state, or not yet in use.
Active	In use, indicating that one or more trees or tree versions are created from the tree structure.
Inactive	Not in use.

Tree Structure Audit Results: Explained

Use the tree structure audit results to verify the tree structure's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

Running an Audit

Setting the status of a tree structure to active automatically triggers an audit of that tree structure. To manually trigger an audit, select Audit from the Actions menu on the Manage Tree Structures page. The Tree Structure Audit Result table shows a list of validations that ran against the selected tree structure.

Audit Validators

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Page	Description (what is validated)	Possible Cause for Validation Failure	Suggested Corrective Action
Restrict By Set ID	Manage Tree Structures: Specify Data Sources	If you select the **Reference Data Set** check box for the **Restrict Tree Node List of Values Based on** option, each of its data source view objects must	Even when the check box is selected, one or more data source view objects doesn't contain a reference data set attribute.	If reference data set restriction is required for this tree structure, include a reference data set attribute on all data sources. Otherwise, deselect the check box.

Validator	Page	Description (what is validated)	Possible Cause for Validation Failure	Suggested Corrective Action
		have a reference data set attribute.		

Available Label Data Sources	Manage Tree Structures: Specify Data Sources	If you select a list item from **Labeling Scheme** to specify a labeling scheme, the label data source view object specified for each data source must be accessible. Also, the primary keys must be valid. This restriction doesn't apply if you select **None** from the list.	• Any of the specified label data source view objects doesn't exist.
			• Any of the specified label data source view objects doesn't have primary keys.
			• When a label data source view object is initially defined, the database registers the primary keys for the view object. If the view object is later modified such that its primary keys no longer match the primary keys that were registered earlier, this validation fails.
				• Correct the specified label data source view object.
				• Correct the primary keys of the specified label data source view object.
				• Do one of the following:
				  ○ Correct the primary keys in the label data source view object to match the primary keys that were earlier registered in **`FND_TS_DATA_SOURCE`**.
				  ○ Correct the primary keys registered in that table to match the new view object definition.

Row Flattened Table Name	Manage Tree Structures: Specify Performance Options	You must specify a valid row flattened table for the tree structure. It can either be the standard row flattened table FND_TREE_NODE_RF or a custom table.	• The specified table doesn't exist in the database. • The specified table doesn't contain the same columns as the **`FND_TREE_NODE_RF`** table.	Correct the row flattened table definition.
Available Data Sources	Add Data Source	Each data source view object specified for the tree structure must be accessible, and all its primary key attributes must be valid.	• Any of the specified data source view objects doesn't exist. • When you define a data source view object, keep the **Use non-defined primary key columns** check box deselected. The database automatically	• Correct the specified data source view object. • Correct the duplicate column in the registered primary keys. • Correct the primary keys of the specified data source view object.

Validator	Page	Description (what is validated)	Possible Cause for Validation Failure	Suggested Corrective Action
			registers the primary keys for the view object. Select this check box if you want the database to register the primary keys you specify. However, if the registered primary keys contain any duplicates, this validation fails. • The **Use non-defined primary key columns** check box is selected in a data source, but the list of specified primary key columns doesn't match the primary keys defined in the corresponding data source view object. • Any common attribute that exists in both the data source view object and the tree node view object isn't of the same data type in both view objects.	• Correct any mismatch in data types.
Column Flattened Table Name	Manage Tree Structures: Specify Performance Options	You must specify a valid column flattened table for the tree structure. It can either be the standard row flattened table FND_TREE_NODE_CF or a custom table.	• The specified table doesn't exist in the database. • The specified table doesn't contain the same columns as the **FND_TREE_NODE_CF** table.	Correct the column flattened table definition.
Restrict by Date	Manage Tree Structures: Specify Data Sources	If you select the **Date Range** check box for the **Restrict Tree Node List of Values Based on** option for a tree structure, each of its data source view objects must have effective start date and end date attributes. This validation doesn't	Even when the check box is selected, one or more of its data source view objects doesn't contain effective start date and end date attributes.	If the date restriction is required for this tree structure, include the effective start date and effective end date attributes on all data sources. Otherwise, deselect the check box.

Validator	Page	Description (what is validated)	Possible Cause for Validation Failure	Suggested Corrective Action
		take place when the check box isn't selected.		
Tree Node Table Name	Manage Tree Structures: Specify Definition	You must specify a valid tree node table for the tree structure. It can either be the standard row flattened table FND_TREE_NODE or a custom table.	• No table is specified in the **Tree Node Table** field. • The specified table doesn't exist in the database. • The specified table doesn't contain the same columns as the **FND_TREE_NODE** table.	Correct the tree node table definition.

Specifying Data Sources for Tree Structures: Points to Consider

The data sources provide the items for establishing hierarchy in a tree structure. In the tree management infrastructure, these data sources are Oracle ADF business components view objects, which are defined by application development.

Labeling Schemes

Selecting a labeling scheme determines how the tree nodes are labeled. You may select a labeling scheme to assign at the data source level, at the parent node level, or keep it open for customers assignment. You may also choose not to have any labeling scheme. However, if you decide to use any of the labeling schemes, select the following additional options, to restrict the list of values that appear under the selected tree node.

- **Allow Ragged Nodes**: To include nodes that have no child nodes, and are shorter than the remaining nodes in the entire hierarchy.
- **Allow Skip Level Nodes**: To include nodes that are at the same level but have parent nodes at different levels.

Restriction of Tree Node Values

You can decide the depth of the tree structure by selecting an appropriate value from the list. Keeping the depth limit open renders an infinite list of values.

Using the following options, you can restrict the list of values that appear for selection under a specific tree node.

- **Date Range**: Specifies whether a selection of nodes should be restricted to the same date range as the tree version.
- **Allow Multiple Root Nodes**: Allows you to add multiple root nodes when creating a tree version.
- **Reference Data Set**: Specifies whether a selection of nodes should be restricted to the same set as the tree.

Data Source Values and Parameters

Tree data sources have optional data source parameters with defined view criteria and associated bind variables. You can specify view criteria as a data source parameter when creating a tree structure, and edit the parameters when creating a tree. Multiple data sources can be associated with a tree structure and can have well-defined relationships among them.

Note: Parameter values customized at the tree level override the default values specified at the tree-structure level.

The data source parameters are applied to any tree version belonging to that data source, when performing node operations on the tree nodes. Data source parameters also provide an additional level of filtering for different tree structures. The tree structure definition supports three data source parameter types.

- Bound Value: Captures any fixed value, which is used as part of the view criteria condition.
- Variable: Captures and binds a dynamic value that is being used by the data source view object. This value is used by the WHERE condition of the data flow.
- View Criteria: Captures the view criteria name, which is applied to the data source view object.

You can also specify which of the data source parameters are mandatory while creating or editing the tree structure.

View objects from the Oracle ADF business components are used as data sources. To associate the view object with the tree structure, you can pick the code from Oracle ADF business component view objects and provide the fully qualified name of the view object, for example, oracle.apps.fnd.applcore.trees.model.view.FndLabelVO.

Specifying Performance Options for a Tree Structure: Points to Consider

Tree structures are heavily loaded with data. As a tree management guideline, use the following settings to improve performance of data rendering and retrieval.

- Row Flattening
- Column Flattening
- Column Flattened Entity Objects
- BI View Objects

Row Flattening

Row flattening optimizes parent-child information for run-time performance by storing additional rows in a table for instantly finding all descendants of a parent without initiating a CONNECT BY query. Row flattening eliminates recursive queries, which allows operations to perform across an entire subtree more efficiently.

To store row flattened data for the specific tree structure, users can either use the central **FND_TREE_NODE_RF** table or they can register their own row flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a row-flattened table contains an additional row with Corporation directly being the parent of Region (Corporation-Region).

Column Flattening

Column flattening optimizes parent-child information for runtime performance by storing an additional column in a table for all parents of a child.

To store column flattened data for the specific tree structure, users can either use the central **FND_TREE_NODE_CF** table or they can register their own column flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a flattened table in addition to these columns, contains three new columns: Region, Sales Division, and Corporation. Although positioned next to each other, the column Region functions at the lower level and Corporation at the higher level, retaining the data hierarchy.

Column Flattened Entity Object

In the absence of a column-flattened table, if you need to generate the business component view objects for your tree structure for the flattened table, use the tree management infrastructure to correctly provide the fully qualified name of the entity object for the column flattened table.

BI View Object

View objects from Business Intelligence can be used as data sources, eliminating the need to create new types of data sources. This field is to store the fully qualified name for the BI view object generated by the tree management for business intelligence reporting and usage The BI view object is a combination of the tree data source and column flattened entity. Using this option prevents data redundancy and promotes greater reuse of existing data, thereby improving the performance of the tree structure.

Search View Object

Specify the full name of the view object for the tree node to ensure that search operations performed on the tree node are efficient.

Manage Trees and Tree Versions

Tree Version Audit Results: Explained

Use the tree version audit results to verify the tree version's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

Running an Audit

An audit automatically runs whenever a tree version is set to active. You can also manually trigger an audit on the Manage Trees and Tree Versions page, using **Actions - Audit**. The Tree Version Audit Result table shows a list of validations that ran against the selected tree version.

Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Effective Date	The effective start and end dates of the tree version must be valid.	The effective end date is set to a value that is not greater than the effective start date.	Modify the effective start and end dates such that the effective start date is earlier than the effective end date.
Root Node	On the Manage Tree Structures: Specify Data Sources page, if the **Allow Multiple Root Nodes** check box for the **Restrict Tree Node List of Values Based on**	Even if the check box is deselected, the tree version has multiple root nodes.	Modify the tree version such that there is exactly one root node.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
	option is not selected, and if the tree structure is not empty, the tree version must contain exactly one root node. This validation does not take place if the check box is selected.		
Data Source Max Depth	For each data source in the tree structure, on the Data Source dialog box, if the data source is depth-limited, the data in the tree version must adhere to the specified depth limit. This validation doesn't apply to data sources for which the **Maximum Depth** field is set to **Unlimited**.	The tree version has data at a depth greater than the specified depth limit on one or more data sources.	Modify the tree version such that all nodes are at a depth that complies with the data source depth limit.
Duplicate Node	On the Data Source dialog box, if the **Allow Duplicates** check box isn't selected, the tree version must not contain more than one node with the same primary key from the data source. If the check box is selected, duplicate nodes are permitted.	Even when the check box is deselected, the tree version contains duplicate nodes.	Remove any duplicate nodes from the tree version.
Available Node	All nodes in the tree version must be valid and available in the underlying data source.	• A node in the tree version doesn't exist in the data source. Deleting data items from the data source without removing the corresponding nodes from the tree version can result in orphaned nodes in the tree version. For example, if you added node A into your tree version, and subsequently deleted node A from the data source without removing it from the tree version, the validation fails. • The tree version contains a tree reference node, which references another tree version that does not exist.	Remove any orphaned nodes from the tree version. Update tree reference nodes so that they reference existing tree versions.
Node Relationship	All nodes must adhere to the relationships mandated by the data sources registered in the tree structure.	The tree structure has data sources arranged in a parent-child relationship, but the nodes in the tree don't adhere to the same parent-child relationship. For example, if the tree structure has a Project data source with a Task data source as its child, Task nodes must always be under Project nodes in the tree version. This validation fails if	Modify the tree version such that the nodes adhere to the same parent-child relationships as the data sources.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
		there are instances where a Project node is added as the child of a Task node.	
SetID Restricted Node	On the Manage Tree Structures: Specify Data sources page, if the **Set ID** check box is selected to enable the **Restrict Tree Node List of Values Based on** option for each tree node, the underlying node in the data source must belong to the same reference data set as the tree itself. This restriction doesn't apply when the check box is not selected.	Even when the check box is selected, the tree version has nodes whose data source values belong to a different reference data set than the tree.	Modify the tree version such that all nodes in the tree have data sources with reference data set matching that of the tree.
Label Enabled Node	On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the **Labeling Scheme** list box, all nodes must have labels. This restriction doesn't apply when you select **None** from the **Labeling Scheme** list box.	The tree structure has a labeling scheme but the tree version has nodes without labels.	Assign a label to any node that doesn't have a label.
Date Restricted Node	On the Manage Tree Structures: Specify Data Sources page, if the **Date Range** check box is selected to enable the **Restrict Tree Node List of Values Based on** option for a tree structure, each node in the underlying data source must have an effective date range same as the effective date range of the tree version. This restriction doesn't apply if the check box isn't selected.	Even when the check box is selected, there are data source nodes that have a date range beyond the tree version's effective date range. For example, if the tree version is effective from Jan-01-2012 to Dec-31-2012, all nodes in the tree version must be effective from Jan-01-2012 to Dec-31-2012 at a minimum. It is acceptable for the nodes to be effective for a date range that extends partly beyond the tree version's effective date range (for example, the node data source value is effective from Dec-01-2011 to Mar-31-2013). It isn't acceptable if the nodes are effective for none or only a part of the tree version's effective date range (for example, the node data source value are effective only from Jan-01-2012 to June-30-2012).	Ensure that all nodes in the tree version have effective date range for the effective date range for the tree version.
Multiple Active Tree Version	On the Manage Tree Structures: Specify Definition page, if the **Allow Multiple Active Tree Versions** check box isn't selected for the tree structure,	Even when the check box isn't selected, there is more than one active tree version in the tree for the same date range.	Set no more than one tree version to Active within the same date range and set the others to inactive or draft status.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
	there must not be more than one active tree version under a tree at any time. This restriction doesn't apply if the check box is selected.		
Range Based Node	On the Data Source dialog box, if the **Allow Range Children** check box isn't selected, range-based nodes are not permitted from that data source. This restriction doesn't apply if the check box is selected.	Even when the check box isn't selected, there are range-based nodes from a data source.	Ensure that any range nodes in your tree version are from a data source that allows range children.
Terminal Node	On the Data Source dialog box, if the **Allow Use as Leaves** check box isn't selected, values from that data source can't be added as leaves (terminal nodes) to the tree version. This restriction doesn't apply if the check box is selected.	Even when the check box isn't selected, values from a data source are added as leaf nodes (terminal nodes).	Modify the tree version such that all terminal nodes are from data sources for which this check box is selected.
Usage Limit	On the Data Source dialog box, if the **Use All Values** option is selected to set the **Usage Limit** for the data source, every value in the data source must appear as a node in the tree. This restriction doesn't apply if **None** option is selected.	Even if the **Use All Values** option is selected, there are values in the data source that aren't in the tree version.	For each data source value that isn't yet available, add nodes to the tree version.

Trees and Data Sources: How They Work Together

Data sources are the foundation of tree management. Tree structures, trees, and tree versions establish direct and real-time connectivity with the data sources. Changes to the data sources immediately reflect on the **Manage Trees and Tree Versions** page and wherever the trees are being used.

Metadata and Data Storage

Tree structures contain the metadata of the actual data and the core business rules that manifest in trees and tree versions. You can select and enable a subset of trees to fulfill a specific purpose in that application.

Access Control

Source data is mapped to tree nodes at different levels in the database. Therefore, the changes you make to the tree nodes affect the source data. Access control set on trees prevents unwanted data modifications in the database. Access control can be applied to the tree nodes or anywhere in the tree hierarchy.

Adding Tree Nodes: Points to Consider

Tree nodes are points of data convergence where a tree branches into levels. Nodes are the building blocks of a tree structure and are attached to tree versions. Whenever you create or edit a tree version, you need to specify its tree node.

In the Setup and Maintenance work area, search for the Define Trees task and access the Manage Trees and Tree Versions page.

Managing Tree Nodes

You can create, modify, or delete tree nodes on the **Tree Version: Specify Nodes** page. To add a tree node, ensure that the tree structure with which the tree version is associated is mapped to a valid data source. You can also duplicate a tree node if the multiple root node feature is enabled.

Node Levels

Usually, the nodes at a particular level represent similar information. For example, in a tree that reflects the organizational hierarchy, all nodes representing divisions appear at one level and all the department nodes on another. Similarly, in a tree that organizes a user's product catalog, the nodes representing individual products might appear at one level and the nodes representing product lines on the immediate higher level.

The following node levels are in use:

- Root node: The topmost node in the tree structure
- Parent node: The node that branches off into other nodes
- Child node: The node that is connected to a node higher in hierarchy (parent node)
- Sibling node: Nodes that are at the same level and belong to the same parent node
- Leaf node: Entities branching off from a node but not extending further down the tree hierarchy

Node Types

A tree node has the following node types.

- Single: Indicates that the node is a value by itself.
- Range: Indicates that the node represents a range of values and possibly could have many children. For example, a tree node representing account numbers 10000 to 99999.
- Referenced Tree: Indicates that the tree node is actually another version for the tree based on the same tree structure, which is not physically stored in the same tree. For example, a geographic hierarchy for the United States can be referenced in a World geographic hierarchy.

FAQs for Manage Job Families

What's the difference between a job set and a job family?

A job family is a group of jobs that have different but related functions, qualifications, and titles. They are beneficial for reporting. You can define competencies for job families by associating them with model profiles.

A job set is an organizational partition of jobs. For example, a job set can include global jobs for use in all business units, or jobs for a specific country or line of business. When you select a job for a position or an assignment, you can view the available jobs in your business unit set and the common set.

Related Topics

- What's a job set?

Manage Job

Jobs: Explained

Jobs are typically used without positions by service industries where flexibility and organizational change are key features. As part of your initial implementation, you specify whether to use jobs and positions, or only jobs.

Basic Details

Basic details for a job include an effective start date, a job set, a name, and a code.

A job code must be unique within a set. Therefore, you can create a job with the code DEV01 in the US set and another job with the same code in the UK set. However, if you create a job with the code DEV01 in the Common set, then you can't create a job with the same code in any other set.

Benchmark Information

You can identify a job as being a benchmark job. A benchmark job represents other jobs in reports and salary surveys. You can also select the benchmark for jobs. Benchmark details are for informational purposes only.

Progression Information

A progression job is the next job in a career ladder. Progression jobs enable you to create a hierarchy of jobs and are used to provide the list of values for the Job field in the Promote Worker and Transfer Worker tasks.

The list of values includes the next three jobs in the progression job hierarchy. For example, assume that you create a job called Junior Developer and select Developer as the progression job. In the Developer job, you select Senior Developer as the progression job. When you promote a junior developer, the list of values for the new job will include Developer and Senior Developer. You can select one of these values, or select another one.

Jobs and Grades

You can assign grades that are valid for each job. If you're using positions, then the grades that you specify for the job become the default grades for the position.

Evaluation Criteria

You can define evaluation criteria for a job, including the evaluation system, a date, and the unit of measure for the system. The Hay system is the predefined evaluation system that's available. An additional value of Custom is included in the list of values for the Evaluation System field, but you must add your own criteria and values for this system.

Uploading Jobs Using a Spreadsheet

If you have a list of jobs already defined for your enterprise, you can upload them from a spreadsheet.

To use this option:

1. Download a spreadsheet template.
2. Add your job information to the spreadsheet.
3. Upload directly to your enterprise configuration.

   You can upload the spreadsheet multiple times to accommodate revisions.

Related Topics

- Job and Position Lookups: Explained

- Using Desktop Integrated Excel Workbooks: Points to Consider
- Enforcing Grades at Assignment Level: Points to Consider

Jobs: Example

Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

Software Industry

For example, XYZ Corporation has a director over the departments for developers, quality assurance, and technical writers.

- Recently, three developers have left the company.
- The director decides to redirect the head count to other areas.
- Instead of hiring all three back into development, one person is hired to each department, quality assurance, and technical writing.

In software industries, the organization is fluid. Using jobs gives an enterprise the flexibility to determine where to use head count, because the job only exists through the person performing it. In this example, when the three developers leave XYZ Corporation, their jobs no longer exist, therefore the corporation has the flexibility to move the headcount to other areas.

This figure illustrates the software industry job setup.

7 Define Project Organizations

Implementing Project Financial Management Without an Organization Hierarchy: Points to Consider

If you have a simple organization structure and don't need the advanced functionality that uses organization hierarchies, such as capitalized interest rate schedules, you can implement Project Financial Management without an organization hierarchy.

Choosing this option facilitates rapid implementation and provides a simplified user experience for mid-sized customers.

Changing Organization Hierarchy Type

You can change the organization hierarchy type to None on the Manage Organization Hierarchies and Classifications page. This includes changing the hierarchy type from None to a department or organization hierarchy, or from a department or organization hierarchy to None.

When you change the hierarchy type, existing burden schedules continue to use their original hierarchy. However, you can't select hierarchies with the old hierarchy type when you create new burden schedules.

When you change the hierarchy type from an HCM hierarchy to None, the project and task owning organization hierarchy and the expenditure organization hierarchy for all business units are updated as follows:

- Organization Hierarchy: No Organization Hierarchy
- Hierarchy Version: No Hierarchy Version

Using Upload Configuration Packages

You can't use the import configuration packages process to change the hierarchy type in the target environment. To change the organization hierarchy type, you must use the Manage Organization Hierarchies and Classifications page in the Setup and Maintenance work area.

You can import all burden schedules regardless of the hierarchy type used in the target environment. However, if a burden schedule uses a hierarchy, the hierarchy must exist in the environment. You can only import capitalized interest rate schedules when there is a department or organization hierarchy type in the target environment.

Creating Burden Schedules

You can create burden schedules without an organization hierarchy. You can also assign multipliers to each organization individually or a single multiplier to all the organizations.

Impact on Existing Transactions

Changing the organization hierarchy type can impact existing project transactions. Before changing the organization hierarchy type from None to a department or organization hierarchy type, you must ensure that the new organization hierarchy includes all the organizations used with the existing transactions.

Using Capitalized Interest Rates

Capitalized interest rates require a department or organization hierarchy. When the hierarchy type is None, you can't create new capitalized interest rate schedules because the Default Organization Hierarchy and Organization Hierarchy lists on the Manage Capitalized Interest Rate Schedules page don't display any values.

Running the Maintain Project Organizations Process

You must run the Maintain Project Organizations process after you add organizations, project classifications, or business units and after you update project organization classifications or hierarchies.

Verifying Business Unit Setup

You must verify the business unit setup if the organization hierarchy list is empty or it's missing when you try to create a project or project template.

1. If the organization list is completely empty, the organization setup is incomplete and you must verify if:
   a. The tree version is active.
   b. The tree was denormalized using the Row Flattening action.
   c. The Maintain Project Organizations process was run.
2. If one or more organizations are missing, you must:
   a. Verify the organizations have been added to the tree.
   b. Navigate to the Manage Project Organization Classifications page.
      i. Verify the organization is classified as a project and task owning organization.
      ii. Verify it is associated with the correct project unit.

Manage Project Unit Organizations

Setting Up Organizations for Project Financial Management: Worked Example

This example describes the creation of three organizations for use in Project Financial Management applications. One organization is the project unit, the second organization can own projects and tasks, and the third organization can incur project expenditures. This example also describes the selection of the organization hierarchy type that controls the hierarchies that can be assigned to business units, and the association of project units and organizations to business units.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What organizations do I want to classify as project units?	Project Operations
What organization hierarchy type will be used by Project Financial Management?	HCM Organization Hierarchy Tree Structure

Decisions to Consider	In This Example
What organizations will own projects or tasks?	Vision Operations
What organizations will incur project expenses?	Vision Corporation
What project units will be associated with business units?	Project Operations Project Manufacturing Project Services

To set up organizations for projects, complete the following tasks:

- Classify organizations as project units
- Classify organizations to own projects and tasks or incur costs on a project
- Select the organization hierarchy type for Oracle Fusion Project Portfolio Management
- Select organization classifications that are relevant to projects
- Select organization hierarchies for the business unit
- Associate project units with business units
- Run the process to maintain project organizations

Prerequisites

Verify that the implementation team completed the following prerequisite steps.

1. Set up organization hierarchies, organization classifications, and organizations.
2. Enable the Project Accounting business unit function for all project business units.

Classifying Organizations as Project Units

To create a project unit organization, either enable an existing organization as a project unit or create a new organization as a project unit. After the project unit is enabled for an organization, the project unit appears in searches on the Manage Project Units page.

1. Navigate to the Setup and Maintenance work area and click Search.
2. On the Search page, search for the Manage Project Unit Organizations task.
3. Click **Create** on the Manage Project Unit Organizations page.
4. On the Manage Project Unit Organizations page, complete the fields, as shown in this table.

Field	Value
Create new	Selected
Code	PROJECT_OPS
Name	Project Operations

5. Click **Save and Close**.

Classifying Organizations to Own Projects and Tasks or Incur Costs on a Project

Specify which organizations can own projects and tasks, and incur project expenses. If an organization can be a project and task owning organization, you also specify whether the organization allows indirect, capital, and contract projects, and associate the organization with a default project unit that is used during the project definition flow to control the list of organizations that can own the project.

1. Navigate to the Setup and Maintenance work area and click Search.
2. On the Search page, search for the Manage Project Organization Classifications task.
3. In the Search: Organization region of the Manage Project Organization Classifications page, enter the name Fusion Operations and click **Search**.
4. In the Search Results: Organization region, select the Fusion Operations row and click **Edit**.
5. In the Change All Selected region of the Edit Project Organization Classifications page, complete the fields, as shown in this table.

Field	Value
Classify as Project Task Owning Organization	Selected
Allow indirect projects (Using this option, organizations can own projects that are used to collect and track costs for overhead activities.)	Selected
Allow projects enabled for capitalization	Selected
Allow projects enabled for billing	Selected
Project Unit	Project Operations

For organizations that can own capital contract projects, select the options to allow projects enabled for capitalization and enabled for billing options.

6. Select **Save and Close**, then proceed to the next step to specify a project expenditure organization.
7. In the Search: Organization region of the Manage Project Organization Classifications page, enter the name Fusion Corporation and click **Search**.
8. In the Search Results: Organization region, select the Fusion Corporation row and click **Edit**.
9. In the Change All Selected region of the Edit Project Organization Classifications page, complete the field, as shown in this table.

Field	Value
Classify as Project Expenditure Organization	Selected

10. Select **Save and Close**.

Selecting the Organization Hierarchy Type for Oracle Fusion Project Portfolio Management

Select the organization hierarchy type for use in Project Financial Management applications, which enables you to assign organization hierarchies, such as the project and task owning organization hierarchy and project expenditure organization hierarchy, to project business units.

1. Navigate to the Setup and Maintenance work area and click Search.
2. On the Search page, search for the Manage Organization Hierarchies and Classifications task.
3. In Project Financial Management applications on the Manage Organization Hierarchies and Classifications page, go to the Organization Hierarchy Types region. Organization hierarchies are optional. If you don't want to use an organization hierarchy, select the None hierarchy type.
4. If you want to use organization hierarchies, select an HCM hierarchy tree structure as the organization hierarchy type for Project Financial Management applications.

   If you use an organization hierarchy, you must use the same organization hierarchy type in both Project Financial Management applications and Oracle Fusion Global Human Resources applications.

   Run the Maintain Project Organizations process after you:

   - Classify organizations as project and task owning or project expenditure owning organizations.
   - Add or classify new organizations.
   - Change organization hierarchy type.

Selecting Organization Classifications that are Relevant to Projects

Oracle Fusion applications support many organization classifications, although some of the organization classifications may not be relevant to a project. Only organizations with the classifications that you select in this task are available in choice lists in areas of the application where a specific organization classification is not required, such as during set up of capitalized interest rate schedules.

1. Navigate to the Setup and Maintenance work area and click Search.
2. On the Search page, search for the Manage Organization Hierarchies and Classifications task.
3. In the Organization Hierarchies region, use the **Available** column to select the organizations that are relevant to projects, as shown in this table.

Field	Value
Available	Asset Organization
	Business Unit
	Partner Organization
	Project Expenditure Organization
	Project Manufacturing Organization
	Project Task Owning Organization
	Project Unit Classification

4. Click the right arrow to move the selected items to the **Selected** column.

To select multiple organizations, hold down the control key as you select the desired organizations, then click the right arrow.

Selecting Organization Hierarchies for the Business Unit

Associate project and task owning organizations to the business unit to restrict the project owning organizations in the project creation flow. Associate project expenditure organizations to the business unit to restrict which organizations can incur costs on the project. Specify an entire organization hierarchy to associate with the business unit by selecting the top node on the tree, rather than individually associating organizations with the business unit. Specify part of an organization hierarchy by selecting an organization at any level of the hierarchy as the starting node on the tree. Oracle Fusion Project Portfolio Management associates all organizations in the hierarchy from the starting node down with the business unit.

The following conditions are required for an organization to be eligible to be a project and task owning organization:

- You must assign the Project and Task Owning Organization classification to the organization.
- The organization must belong to the hierarchy that you specify in the project implementation options for the business unit.

The following conditions are required for an organization to be eligible to be a project expenditure organization:

- You must assign the Project Expenditure Organization classification to the organization.
- The organization must belong to the hierarchy that you specify in the project implementation options for the business unit.

1. Go to the Configure Project Accounting Business Function setup page for the Vision Corporation Enterprise business unit.
2. On the Project Setup tab, Project Task Owning Organization region, complete the fields, as shown in this table.

Field	Value
Tree Name	Corporate Tree Structure
Tree Version Name	Corporate Tree Structure Version 1
Organization	Project Operations

3. Select the **Expenditures** tab.
4. In the Project Expenditure Organization region, complete the fields, as shown in this table.

Field	Value
Tree Name	Corporate Tree Structure
Tree Version Name	Corporate Tree Structure Version 1
Organization	Corporate Operations

5. Click **Save and Close**.

Associating Project Units with Business Units

1. Navigate to the Setup and Maintenance work area and click Search.

2. On the Search page, search for the Manage Organization Trees task.
3. Open the Configure Project Accounting Business Function setup page.
4. On the Configure Project Accounting Business Function page, select the **Project Units** tab.
5. In the **Available Project Units** column, select the project units to associate with this business unit, as shown in this table.

Field	Value
Available Project Units	Project Services Project Manufacturing Project Operations

6. Click the right arrow to move the selected items to the **Selected Project Units** column.
7. Click **Save and Close**.

Running the Maintain Project Organizations Process

You must run the process to maintain project organizations to ensure the organization changes are completed.

1. Navigate to the Scheduled Processes page.
2. Click **Schedule New Process**.
3. Search for and select the Maintain Project Organizations process.
4. In the Process Details window, click **Submit**.

Manage Project Unit Options

Creating a Project Unit: Worked Example

You can create or edit a project unit by using the Manage Project Unit Organizations task. This example demonstrates how to define the following for project units.

- General properties.
- Business units.
- Summarization options.
- Performance reporting options.
- Analytic reporting options.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What's the default reference set for projects in this project unit?	Enterprise set. By default, the set for each reference data object comes from the default set specified in the project unit general properties. Use the Manage Project Unit Set Assignments task to assign sets to project units to determine how reference data is shared across different lines of business in a company.

Decisions to Consider	In This Example
Should I relate business units to this project unit?	Yes. Identify the business units that are accountable for financial transactions for projects in this project unit. Business units that aren't associated with any project unit are valid for all project units.
What transactions can I include in project performance data summarization?	Cost, commitment, and budget and forecast transactions Requisitions, purchase orders, and supplier invoices commitment types
Which currency and calendar types should I select to summarize and display on project performance reports?	Project currency and project ledger currency Project accounting calendar and accounting calendar You must select at least Accounting calendar. Optionally, you can also select Project accounting calendar.
Should I track key performance indicators?	Yes You can select No if you don't want to track key performance indicators.
Should I track missing time cards from employees?	Yes You can select No if you don't want to track missing time cards from employees. Missing transactions such as time cards can affect project performance results and result in misleading key performance indicator values for the project.

For each project unit, you configure project management settings such as the default set assignment, project numbering series, full-time equivalent hours, related business units, and reporting options.

Prerequisites

This example is based on the assumption that the following prerequisite set up tasks are complete:

1. Set up organization hierarchies, organization classifications, and organizations.
2. Enable the Project Accounting business unit function for all project business units.
3. Classify organizations as project units.

Defining Project Unit General Properties

1. On the Manage Project Units page, Search Results region, select the Project Operations project unit, and click **Edit**.
2. On the Manage Project Units: General Properties page, complete the fields, as shown in this table.

Field	Value
Default Set	ENTERPRISE
Project Numbering - **Method**	Manual

Field	Value
Project Numbering -**Type**	Alphanumeric
Full-Time Equivalent Hours -**Daily**	8
Full-Time Equivalent Hours -**Weekly**	40

Defining Project Unit Related Business Units

1. Click **Next** on the Manage Project Units: General Properties page.
2. On the Manage Project Units: Related Business Units page, select the business units in the Available Business Units column to associate with this project unit, as shown in this table.

   Note: If you don't relate the project unit to a business unit, the project unit will be available to all business units that are not associated to another project unit.

Field	Value
Available Business Units	Corporate Enterprise Corporate Manufacturing Internal Systems and Support

3. Click the right arrow to move the selected business units to the Selected Business Units column.

   To select multiple items, press the control key while you select the wanted business units, then click the right arrow.

Defining Project Unit Summarization Options

Specify which transactions, commitment types, and statuses are summarized for display on project performance reports. Select the currency and calendar types to summarize and display financial information on project performance reports.

1. Click **Next** on the Manage Project Units: Related Business Units page.
2. On the Summarization Options tab, Data Sources region, complete the fields, as shown in this table.

Field	Include in Summarization Value
Cost	Selected
Commitments	Selected
Budgets and forecasts	Selected

3. In the Commitment Types region, complete the fields, as shown in this table.

Field	Include in Summarization Value	Status Value
Requisitions	Selected	All
Purchase orders	Selected	All
Supplier invoices	Selected	All
Other commitments	Not selected	Not applicable

4. In the Currency Types region, complete the fields, as shown in this table.

Field	Value
Project currency	Selected
Transaction currency	Not selected
Project ledger currency	Selected

5. In the Calendar Types region, complete the fields, as shown in this table.

Field	Value
Project accounting calendar	Selected
Accounting calendar	Selected

6. In the Planning Amount Allocation region, complete the field, as shown in this table.

Field	Value
Basis	Period start date

Defining Project Unit Performance Reporting Options

Select the reporting options that determine the default display on project performance reports.

1. Click the **Performance Reporting Options** tab on the Manage Project Units: Reporting Setup page.
2. In the Performance Reporting Options tab, Reporting Options region, complete the fields, as shown in this table.

Field	Value
Currency Type	Project currency
Calendar Type	Accounting

Field	Value
Effort Unit of Measure	Hours
Project Accounting Period	Current period
Accounting Period	Current period
Amount Scale	1

3. In the Key Performance Indicators region, complete the fields, as shown in this table.

Field	Value
Track key performance indicators	Selected
Generate key performance indicators after summarizing project data	Not selected
Summarize project data before generating key performance indicators	Selected

Defining Project Unit Analytic Reporting Options

1. Click the **Analytic Reporting Options** tab on the Manage Project Units: Reporting Setup page.
2. In the Analytic Reporting Options tab, Missing Time region, complete the fields as shown in this table.

Field	Value
Track missing time	Selected
Number of Prior Weeks	3
Include current week	Selected

3. In the Missing Time Sources region, complete the field, as shown in this table.

Field	Source Value	Document Value
Missing Time Sources	Time Entry System	Time Card

4. In the Current Exception Reporting region, enter a value of 35 for the **Comparison Period in Days** field.
5. Click **Save and Close**.

   Run the Maintain Project Organizations process from the Scheduled Processes page after you:
   - Classify organizations as project and task owning or project expenditure owning organizations.

- Add or classify new organizations.
- Change the organization hierarchy type.

Project Unit Components: How They Work Together

Project units are operational subsets of an enterprise that conducts business operations using projects and enforces consistent project planning, management, analysis, and reporting. Project units often represent lines of business, such as Consulting Services, Sales, and Research and Development. You must set up at least one project unit to use in Oracle Fusion Project Portfolio Management.

Maintain independent setup data for each project unit while sharing a common approach to financial management across all project units. The following diagram shows two project units that share a common approach to financial management and data. Each project unit maintains separate reference data for managing projects.

General Properties

General property options include the default reference data set the application uses for any new reference data object associated with the project unit. You can override the default set for each reference data object. The method of project number creation, either manual or automatic, and daily or weekly full time equivalent hours for reporting purposes, are also included in general properties.

Set Assignments

Assign sets to project units to determine how the application shares reference data across different lines of business in a company. A project unit is a set determinant for the following objects.

- Project Definition: Includes set-enabled reference data for the project definition including:
  - Class code
  - Financial plan type
  - Project role
- Project Transaction Types: Includes set-enabled reference data for project transactions including:
  - Project expenditure type
  - Project work type

Set assignment configuration includes the following options for each project unit.

- Reference Data Object: For the project definition and project transaction types.
- Reference Data Set Code: By default, the set for each reference data object is from the default set specified for the project unit.

Related Business Units

You associate business units with a project unit to identify the business units that are accountable for financial transactions of projects in each project unit. You can change the project unit and business unit association if you haven't used the combination on a project or project template. If a business unit isn't associated with any project unit, then the business unit is valid for all project units.

Reporting Setup

Project performance reporting configuration includes the following options for each project unit.

- Summarization data sources, commitments to include in summarization, currency types, calendar types, and the planning amount allocation basis for summarization.
- Default reporting options that determine how data appears in the Project Performance Reporting dashboard and reports. You can override these settings.
- Key performance indicators tracking option.
- Analytic reporting options to track missing time transactions.
- Time sources that are available for the project unit.
- Number of days prior to current date to include in current reporting data.

Using Multiple Project and Business Units: Examples

A project unit defines a set of rules and options for creating and managing the nonfinancial aspects of projects, such as project definition, scheduling, and reporting. You can define one or more project units based on how granular you want to separate processing options, reference data, security, and other controls. The list of project units can be different and independent from the list of business units that perform your enterprise financials functions, such as payables and receivables.

Following are two examples of associating project units and business units.

Single Project Unit with Multiple Business Units

A consulting company has offices in the US, Canada, and Mexico. Each location uses local purchasing and payables practices. The company uses projects to track time and expenses for billing through contracts.

Multiple Project Units with Multiple Business Units

A products and services company has main offices in the US and a warehouse and sales office in Canada. Due to operations in two different countries, the company partitions financial data by using two business units. The research processes are the same in both countries, so a single project unit facilitates common project management practices. The company has an information technology (IT) services project unit that is associated with US business unit. It also has a sales and consulting project unit that is associated with both the US and Canadian business units. The consulting line of business uses projects to

manage consulting engagements and provide billing details to contracts. The internal real estate line of business uses projects to manage the US and Canada facilities, including new construction and repairs.

Performance Data Summarization: How It's Processed

Summarization is a systematic organization of information for purposes of project analysis and tracking. You use summarized data to analyze the health of projects and drill down to the causes of any deviation from set thresholds. You can complete the following tasks using summarized data:

- Analyze project performance data
- Review project performance
- Analyze KPI categories and KPIs
- Track project progress
- View revenue and invoice summaries

Running summarization renders the KPI related information out of date with respect to the latest summarized information. Therefore, it is important that you generate KPI values after the summarization process completes. You can avoid generating KPI values manually, by enabling automatic generation of KPI values in the summarization options.

Settings That Affect Performance Data Summarization

You summarize data for a project unit or a business unit. You can also summarize performance data for a range of projects or projects owned by a project manager. Besides this, you must specify the following parameters each time you want to run the summarization process manually:

Select the appropriate summarization method as described in the following table:

Summarization Method	Usage
Incremental	General purpose summarization.
Bulk	Summarize large amounts of data at one time.

Summarization Method	Usage
Delete and resummarize	Correct summary data when the source system data changes outside the regular transaction flow.
Resource breakdown structure	Migrate all summary data from one resource breakdown structure version to the next. If you select this option you must also specify the resource breakdown structure header.

Specify whether to summarize the following transactions:

- Budget and forecast
- Commitment
- Actual cost
- Revenue and invoice

How Performance Data Is Summarized

Performance data summarization collects data from various sources and assigns amounts to relevant tasks and resources in the project. After the process summarizes data, you can view how much is being spent on, incurred by, or received by a task or resource. Also, you can track data across different time lines since the process groups according to periods. Run the **Update Project Performance Data** process from the Scheduled Processes page to summarize data.

You can run the summarization process for different situations, such as:

- Your data is out of date and you want to update it.
- Your data is corrupt and you want to delete the existing data and resummarize.
- You have a large volume of unsummarized data, and want to summarize the entire bulk of data in one run.

After you select the summarization parameters and submit a request, the process performs the following steps to generate the data that you view in the application:

- Scope the summarization by determining the list of projects, contracts, and batches of transaction data for which to run summarization.

  Note: When you summarize a project associated with a contract having multiple projects, the application summarizes all the projects associated with the contract.

- Extract data to summarize from data sources, group it by periods, and prepare the data for resource mapping.
- Populate summary data into designated tables before resource breakdown structure mapping.
- Populate business unit, project unit, and other lookup information.
- Populate performance reporting dimension data including time, task breakdown structure, and resource breakdown structure.
- Look up resource breakdown structure mappings, scenario dimension members, period IDs, and prepare data for loading into Oracle Essbase.
- Load data into Oracle Essbase and merge data into the summary tables.

You can track the progress of summarization on the process monitor. If the process fails to complete, it continues from the point of failure when you resubmit it.

Related Topics

- KPI Values: How They're Generated
- How can I update project performance data and generate KPI values?

FAQs for Define Project Units

How can I associate a business unit with a project unit?

You can associate a business unit with a project unit during the Related Business Units step of the Manage Project Units setup task if the business unit is already configured using the Configure Project Accounting Business Function setup task.

If the business unit is not configured, then you can associate a project unit with the business unit on the Project Units tab of the Configure Project Accounting Business Function page.

What happens if I change the organization hierarchy type that's available for Project Financial Management applications?

Changing the organization hierarchy type can impact existing transactions that use the hierarchy. All organizations in the previous hierarchy must exist in the new hierarchy. If you adjusted transactions, the rates and multipliers derived for an organization can be different in the new hierarchy.

If you use an organization hierarchy in Project Financial Management applications, you must use the same organization hierarchy type that you set up in Oracle Fusion Global Human Resources.

What happens if I remove organization classifications from the list of selected classifications that are available for project applications?

The organization classifications no longer appear in the list of organization values that are available for selection in the application.

Selected organization classifications on the Manage Organization Hierarchies and Classifications page are available for selection in areas of the application where a specific organization classification is not required, such as setting up capitalized interest rate schedules, burden schedules, and transfer price schedules.

What happens to project and task owning organizations and project expenditure organizations if human resource organizations are reorganized?

If you don't use organization hierarchies, the organizations of existing projects and transactions remain available as long as they are active and are classified as project and task owning organizations or as project expenditure organizations.

If you use new organization hierarchies or hierarchy versions, you must include all organizations referenced on existing projects and transactions in the new organization hierarchies or hierarchy versions.

You can use the Change Project and Task Organizations process to change the project and task owning organizations on existing projects.

Run the Maintain Project Organization process after you:

- Classify organizations as project and task owning or project expenditure owning organizations.
- Add or classify new organizations.
- Change the organization hierarchy type.

What's a project expenditure organization?

A project expenditure organization can incur expenditures for projects and be used as a planning and budgeting resource. Before you use an organization for expenditures, you must assign it to the Project Expenditure Organization classification. If you use organization hierarchies, assign the expenditure organization to the hierarchy specified in the implementation options for the business unit.

What's a project and task owning organization?

Every project is owned by an organization that's used for reporting, security, and accounting. An organization can own specific types of projects, such as indirect projects, capital projects, billable projects, and capital contract projects. For an organization to be eligible to be a project or task owning organization, you must assign the organization the Project Task Owning Organization classification. Also, the organization must be assigned to the hierarchy that you specify in the project implementation options for the business unit. Assign project and task owning organizations to project units to specify which organizations are available to own the project.

What's the difference between organizations and organization hierarchies?

Organizations are departments, sections, divisions, companies, or other organizational units in your enterprise. You can gather collections of organizations into organization hierarchies.

Organization hierarchies help you manage expenditure and reporting data, and coordinate the project-owning organizations in your enterprise.

During implementation, you select the organization hierarchy type for use in Project Financial Management applications. You can optionally choose not to use organization hierarchies. If you select to use a hierarchy, you select either the department hierarchy tree structure or the generic organization hierarchy tree structure. Then you assign hierarchies to the project implementation options for each business unit used in Project Financial Management applications.

> **Note:** If you use either the department or the organization hierarchy tree structure hierarchy type, you must assign the same organization hierarchy type that you set up in Oracle Fusion Global Human Resources.

What's the difference between manual and automatic methods of numbering projects?

The manual method of project numbering requires you to enter a unique alphanumeric project number each time you create a project.

The automatic method of project numbering requires that you set up the first project number during project unit configuration, and then the application automatically assigns an incremental project number at project creation.

What's the difference between the project unit organization code and name?

Typically the project unit name is logical, descriptive, and easily recognizable.

The code is a unique short name that is used internally.

Both the project unit organization code and name are used to identify the project unit.

Can I specify the budgets and forecasts to include in summarization?

Certain financial plan types are included in summarization by default, while you must manually select others. Approved forecast and baseline budget versions of the following financial plan types are automatically included in summarization of project performance data:

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

Apart from the default financial plan types, you can include up to four others in summarization of project performance data.

What happens when I select a planning amount allocation basis for the project unit?

The **Period Start Date** and **Period End Date** options allocate amounts based on the period start and end dates. The **Daily Proration** option spreads plan amounts evenly across the plan.

Manage Project Unit Set Assignments

Associating Sets with Financial Plan Types: Example

You associate sets with financial or project plan types so that project managers can use them to create financial plans (budget or forecast versions) or project plans for projects or project templates. Financial or project plan types are available for selection only when projects or project templates are created for project units linked to selected sets.

The following example illustrates the relationship between financial plan types, sets, and project units. Project plan types share an identical relationship with sets and project units.

Scenario

An organization has two designated project units for project creation: Project Unit 1 and Project Unit 2. Project Unit 1 is associated with Set 1 and Project Unit 2 is associated with Set 2.

During implementation, two financial plan types were created: Financial Plan Type A and Financial Plan Type B. Financial Plan Type A is associated with Set 1. However, Financial Plan Type B is associated with both Set 1 and Set 2.

In such a case, project managers working on projects for Project Unit 1 can use only Financial Plan Type A to create financial plan versions. Project managers working on projects for Project Unit 2 can use both Financial Plan Type A and Financial Plan Type B.

The following diagram further illustrates the relationship between financial plan types, sets, and projects. Project plan types share the same relationship with sets.

Set Assignments and Project Data: How They Work Together

Reference data set assignments determine how you share enterprise information, including project data, across organizational units. You can decide which data is global, which data can be shared by certain organizations, and which data must remain organization-specific. Reference data sharing enables enterprises to balance autonomy and control for organizations.

Project Portfolio Management applications employ two set determinants: business unit and project unit.

Business Unit as Set Determinant

Business units enable you to control and report on financial transactions, usually for specific geographical entities within the enterprise. For project management purposes, assign the Project Accounting business function to the business unit.

Business unit is a set determinant for the project-related reference data objects described in the following table.

Reference Data Object	Entities
Project Accounting Definition	Project types
Project Rates	Project rate schedules

You assign a default set to each business unit. The **Project Accounting Definition** and **Project Rates** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select project types and rate schedules that are assigned to the same set as the business unit. If you assign a common set to a rate schedule, then that rate schedule is available for use across business units.

Project Unit as Set Determinant

Use project units to enforce consistent project management practices across your enterprise. Project unit is a set determinant for the reference data objects described in the following table.

Reference Data Object	Entities
Project Definition	Class codes, financial plan types, project plan types, and project roles
Project Transaction Types	Expenditure types and work types

You assign a default set to each project unit. The **Project Definition** and **Project Transaction Types** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select class codes, plan types, roles, expenditure types and work types that are assigned to the same set as the project unit. To enable expenditure types and work types for use on projects owned by a project unit, assign the set associated with the Project Transaction Types reference data object to those entities.

Related Topics

- Partitioning Project Data Using Set Determinants: Examples
- Project Units: Explained
- Reference Data Sharing: Explained

Partitioning Project Data Using Set Determinants: Examples

Use business units and project units to independently manage access to financial and project management data based on the unique requirements of your enterprise.

This topic illustrates the following scenarios.

1. Maintaining separate project management methodologies and data across units within an enterprise while centralizing financial management of data
2. Enforcing a single project management methodology across units within an enterprise while partitioning financial data

Note: These examples are only illustrative. Any combination of business units and project units can exist.

Using Multiple Project Units with One Business Unit

Assume that Vision Corporation is a services company with facilities across the United States. Its business is based on research and development activities and consulting practice. Each of the following lines of business use projects:

- Consulting uses projects to manage consulting engagements and provide billing details to contracts.
- Research and Development uses projects to manage design project schedules.
- Real Estate uses projects to manage facilities, including new construction and repairs.

Vision Corporation implemented project units and business units as follows:

- Project Units
  - Consulting
  - Real Estate
  - Research and Development
- Business Unit: Vision Corporation

The default sets assigned to each project unit are described in the following table.

Project Unit	Default Set
Consulting	Consulting Set
Real Estate	Real Estate Set
Research and Development	Research and Development Set

Note: The Project Definition and the Project Transaction Types reference data objects use the default set.

Vision Corporation can maintain independent setup data for each project unit, while sharing a single approach to financial management across all project units. For example, Vision Corporation uses different expenditure types for each project unit, as described in the table below.

Expenditure Type	Sets
Labor	Consulting Set Real Estate Set Research and Development Set

Expenditure Type	Sets
Airfare	Consulting Set
Hotel	Consulting Set
Equipment	Real Estate Set

The Labor expenditure type can be used for projects belonging to any project unit. However, expenditure types for airfare and hotel accommodation are used only on consulting projects.

Using Multiple Business Units with One Project Unit

Assume that Vision Corporation is a services and product development company with research and development facilities across the globe, including in the United States and Canada. Due to its international operations, you create multiple business units to segregate financial data. However, you can create a single project unit because research and development projects are similar across the enterprise. Therefore, you create a single project unit.

The enterprise structure and set assignments are described below.

- Project Unit: Research and Development
- Business Units
  - Vision United States
  - Vision Canada

The default sets assigned to each business unit are described in the following table.

Business Unit	Default Set
Vision United States	US Set
Vision Canada	Canada Set

Vision Corporation maintains independent financial data for each business unit, while employing a unified approach to project management that includes common financial types, project plan types, and project roles. The enterprise must use different resource rates in each country. The following table describes the rate schedule setup for each country.

Rate Schedule Name	Project Rates Set
Enterprise Project Rates: United States	US Set
Enterprise Project Rates: Canada	Canada Set
Common Enterprise Project Rates	Common Set

These set assignments govern how planned and actual amounts are calculated for projects. For example, when Vision Corporation defines organization costing rules for the Vision United States business unit, they can select only the Enterprise Project Rates: United States or the Common Enterprise Project Rates rate schedules.

Define Project Business Unit Options

Business Units: How They Work with Projects

Business units are subsets of an enterprise that perform one or more business functions and can be consolidated in both a managerial and legal hierarchy. Project accounting is an example of a business function that's set up by business unit. Other examples are billing and revenue management, customer contract management, and payables invoicing.

Business units are defined centrally. During implementation, you must enable the Project Accounting business unit for use with Project Financial Management applications.

You can partition financial data using business units while sharing a single approach to project management across all business units. The following diagram shows two business units, one from the United Kingdom (UK) and one from the United States (US). These business units have the same research and development processes, so a single project unit is used by both business units to facilitate common project management practices.

Project Setup

Following are project setup options for each business unit that you enable for use with Oracle Fusion Project Portfolio Management.

- Project and task owning organization name, tree name, and tree version name.

> **Note:** To own projects or tasks, an organization must be classified as project and task owning organization, belong to the hierarchy associated with the business unit, and be active on the system date. The project type class must be permitted to use the organization to create projects.

- Project and task owning organizations are associated with the business unit to restrict these organizations in project creation flow. The project initiator specifies the business unit for the project, then can select from only those project and task owning organizations that are associated with the selected business unit. A project can be associated with only one business unit.

Project Expenditure

Following are business unit project expenditure implementation options.

- Day of the week when the expenditure cycle begins.
- Project expenditure organizations to associate with the business unit to restrict which organizations can incur costs on the project.

Project Costing

Following are business unit project costing implementation options.

- Project accounting calendar, either the default project accounting calendar from primary ledger calendar, or a different calendar to assign to the business unit. You can change this calendar until you copy the project accounting periods.
- Default asset book for assets in the business unit. The asset initiator can select a different asset book for the asset.
- Option to use either common accounting and project accounting periods, or unique project accounting periods.
- Overtime calculations option.
- Asset retirement processing option to capture and record the cost of removal and the proceeds of sale amounts for retiring an asset.
- Separation of duties option for entering and releasing expenditure batches to ensure accuracy and accountability of project costs.
- Conversion rate type to use when converting the amount on cost transactions in this business unit from the transaction currency to the ledger currency.

Project Units

Project units are associated with business units to restrict the business units that can handle project transactions. When a project unit isn't associated with a business unit, any business unit in your enterprise can process project transactions.

Cross-Charge Transactions

Following are business unit cross-charge transaction implementation options.

- Transfer price currency conversion rate date type and rate type for the business unit.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions between different organizations in the same business unit and legal entity.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions between different business units in the same legal entity.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions for a specific receiver business unit.

Customer Contract Management

You can configure customer contract management business function properties, such as currency conversion, cross-charge transaction, and billing options, for each contract business unit.

Reference Data Sharing

Assign sets to business units to determine how reference data is shared across applications. A business unit is a set determinant for the following objects:

- Project accounting definition, including set-enabled reference data such as project type.
- Project and contract billing, including set-enabled reference data such as invoice format.
- Project rates, including set-enabled reference data such as rate schedules.

Maintaining Accounting Periods and Project Accounting Periods: Critical Choices

During business unit implementation you determine whether to maintain common accounting and project accounting periods, or define project accounting periods that have a different frequency than the accounting periods.

Accounting periods are used by Project Financial Management applications to assign accounting periods and dates to transactions. Accounting periods are maintained by ledger and use the same calendar as the general ledger periods. Project accounting periods are used by Project Financial Management applications for project planning, costing, billing, budgeting, forecasting, and performance reporting. Project accounting periods are maintained by business unit and typically do not use the same calendar as the accounting and general ledger periods.

Maintaining Common Accounting and Project Accounting Periods

If you want to report project information with the same frequency as the accounting periods, you can use the accounting period as both the accounting and project accounting period.

When you maintain common accounting and project accounting periods, period maintenance is simplified, calendar periods are not copied to Project Financial Management applications, and period information is maintained in one physical location. Use Oracle Fusion General Ledger to maintain accounting period statuses and run the processes to open and close accounting periods.

Defining Project Accounting Periods that are Different from Accounting Periods

If you want to account for project transactions and report project information more frequently than the accounting periods allow, you can define project accounting periods that are shorter than the accounting periods. For example, you can define weekly project accounting periods and monthly accounting periods, as shown in the following diagram.

Accounting Period	Period Number
Oct-11	10
Sep-11	9
Aug-11	8
Jul-11	7
Jun-11	6
May-11	5
Apr-11	4
Mar-11	3
Feb-11	2
Jan-11	1
Dec-10	12
Nov-10	11
Oct-10	10

Project Accounting Period	Period Number
Oct-W4-11	42
Oct-W3-11	41
Oct-W2-11	40
Oct-W1-11	39
Sep-W4-11	38
Sep-W3-11	37
Sep-W2-11	36
Sep-W1-11	35
Aug-W4-11	34
Aug-W3-11	33
Aug-W2-11	32
Aug-W1-11	31
Jul-W4-11	30

Use Oracle Fusion General Ledger to maintain accounting period statuses and run the processes to open and close accounting periods, and Project Financial Management applications to maintain project accounting period statuses and run the processes to open and close project accounting periods.

FAQs for Define Project Business Unit Options

How can I set up common accounting and project accounting periods?

Complete the following steps:

1. Set up the general ledger accounting calendar and accounting periods.
2. During project business unit implementation, select the accounting calendar as the project accounting calendar, then select the option to maintain common accounting and project accounting periods.

How can I set up project accounting periods that are different from accounting periods?

Complete these tasks to set up project accounting periods that are different from accounting periods.

- Set up the accounting calendar and manage the accounting period statuses in Oracle Fusion General Ledger.
- During project business unit implementation, specify the project accounting calendar for each business unit.
    - Verify that the option to maintain common accounting and project accounting periods is not selected.
- Copy the accounting calendar into the project accounting period table, which copies the period start and end dates.

- Manage the period statuses for project accounting periods.

What's the difference between a project accounting period, an accounting period, and a general ledger period?

Project accounting periods are used to track budgets and forecasts, summarize project amounts for reporting, and track the project status. Project accounting periods are maintained by the business unit. You can set up project accounting periods to track project periods on a more frequent basis than accounting periods. For example, you can define weekly project accounting periods and monthly accounting periods. If you use the same calendar as your accounting periods, the project accounting periods and accounting periods will be the same, although the statuses are maintained independently.

Accounting periods, which are used to derive accounting dates, are maintained by the ledger and use the same calendar as the general ledger periods. Period statuses for the accounting period and general ledger period are maintained independently.

You can select an option on the business unit definition to maintain common accounting and project accounting periods. This option allows the accounting period to be used as the project accounting period and you maintain only one period status.

What happens if I close an accounting or project accounting period permanently?

You can't enter any transactions in the period you have closed and you can adjust transactions in subsequent periods.

How can I associate a business unit with a project unit?

You can associate a business unit with a project unit during the Related Business Units step of the Manage Project Units setup task if the business unit is already configured using the Configure Project Accounting Business Function setup task.

If the business unit is not configured, then you can associate a project unit with the business unit on the Project Units tab of the Configure Project Accounting Business Function page.

8 Define Users and Security

Define Security: Overview

Oracle Enterprise Resource Planning Cloud (Oracle ERP Cloud) and Oracle Supply Chain Management Cloud (Oracle SCM Cloud) are secure as delivered; they limit access to one initial setup user. To enable application users to access application functions and data, you perform tasks in these task lists, as appropriate:

- Define Security for Financials
- Define Security for Procurement
- Define Users and Security for Product Management
- Define Security for Project Execution Management
- Define Security for Project Financial Management
- Define Security for Supply Chain Management

This topic introduces the tasks in these task lists. For more information on ERP and SCM security setup and task instructions, see these guides:

- Oracle Enterprise Resource Planning Cloud: Securing Oracle ERP Cloud.
- Oracle Supply Chain Management Cloud: Securing Oracle SCM Cloud.

Note: You can perform most tasks in these task lists both during implementation, and later as requirements emerge.

Manage Job Roles

The Oracle ERP Cloud and Oracle SCM Cloud security reference implementations provide many predefined job roles. You can perform the Manage Job Roles task to:

- Review the role hierarchy and other properties of a job or abstract role.
- Create custom job and abstract roles.
- View the roles assigned to a user.
- View the users who have a specific role.

A user with the IT Security Manager or Application Implementation Consultant job role performs the Manage Job Roles task.

Manage Duties

The Oracle ERP Cloud and Oracle SCM Cloud security reference implementations provide many predefined duty roles. You can perform the Manage Duties task to:

- Review the duties of a job or abstract role.

- Manage the duties of a custom job or abstract role.
- Create custom duty roles.

A user with the IT Security Manager job role performs the Manage Duties task.

Define Data Security

You can manage Oracle ERP Cloud and Oracle SCM Cloud application data by performing tasks in these task lists:

- Define Data Security for Financials
- Define Data Security for Procurement
- Define Data Security for Product Management
- Define Data Security for Project Financial Management
- Define Data Security for Supply Chain Management

You can perform the tasks in these task lists to:

- Manage data access sets that secure ledgers.
- Manage Human Capital Management (HCM) security profiles that facilitate data role assignment for application users.
- Manage data security policies that determine grants of entitlement to a user or role on an object or attribute group.

A user with the IT Security Manager job role performs the tasks in the Define Data Security task lists.

Manage Role Provisioning Rules

You create role mappings to control the provisioning of all types of roles to application users by performing this task. For example, you can create a role mapping to provision the Accounts Payable Specialist role automatically to users that meet criteria specific to accounts payable users.

A user with the IT Security Manager job role performs the Manage Role Provisioning Rules task.

Manage Oracle Social Network Objects

You can determine which business objects in Oracle ERP Cloud are available for social collaboration by performing this task. For example, use this task to enable discussion among Oracle Social Network users about requisitions, purchase orders, invoices, payments, receipts, and other transactions.

A user with the IT Security Manager or Application Implementation Consultant job role performs the Manage Oracle Social Network Objects task.

Note: You can perform this task after you set up and configure Oracle Social Network. If you do not use Oracle Social Network, you can skip this task.

9 Define Transactional Business Intelligence Configuration

Define Transactional Business Intelligence Configuration: Overview

Use the Define Transactional Business Intelligence task list in the Setup and Maintenance work area to complete configuration of business intelligence in your application. Some tasks in this task list are performed during Oracle Applications Cloud provisioning and require no further action from you. The Define Transactional Business Intelligence Configuration task list includes the following tasks:

- Optimize Transactional Business Intelligence Repository

  Trim unused projects from the business intelligence repository based on configured Oracle Applications Cloud offerings. This optimization is automated during the provisioning process and requires no further action from you.
- Manage Transactional Business Intelligence Connections

  Review data source connections in the physical layer of the business intelligence repository. Connections are set up and reviewed during the provisioning process, and this task requires no further action from you.
- Manage Security for Transactional Business Intelligence

  Review security for business intelligence users. The default security configuration can be modified. Refer to the security documentation for your cloud services to review or change the default user security model.
- Configure Key Flexfields for Transactional Business Intelligence

  Define the key flexfield segments and validation for use as classification keys. You must define these key flexfields for Oracle Fusion Transactional Business Intelligence to operate correctly.
- Configure Descriptive Flexfields for Transactional Business Intelligence

  Define validation and display properties of descriptive flexfields, which are used to add custom attributes to entities. You enable and import flexfields for use in analyses.
- Import Essbase Cubes into Transactional Business Intelligence Repository for Financials General Ledger

  Import Essbase cubes into the business intelligence repository. You must perform this task if you're using Oracle Fusion General Ledger.
- Manage User Currency Preferences in Transactional Business Intelligence

  Manage user currency preferences, which control regional currency settings, currency used in reports, and corporate currency.

Related Topics

- Essbase Rule File and Cubes: Overview
- Configuring Flexfields for Use in Analyses: Overview

- Configuring Descriptive Flexfields for Transactional Business Intelligence: Overview
- Importing Flexfield Changes: Overview
- Setting Currency Preferences for Analytics

10 Define Project Portfolio Management Common Reference Objects

Manage Value Sets

Value Sets: Explained

A value set is a group of valid values that you assign to a flexfield segment to control the values that are stored for business object attributes.

An end user enters a value for an attribute of a business object while using the application. The flexfield validates the value against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

Note: Ensure that changes to a shared value set are compatible with all flexfields segments using the value set.

The following aspects are important in understanding value sets:

- Managing value sets
- Validation
- Security
- Precision and scale
- Usage and deployment
- Protected value set data

Managing Value Sets

To access the Manage Value Sets page, use the Manage Value Sets task, or use the Manage Descriptive Flexfields and Manage Extensible Flexfields tasks for configuring a segment, including its value set. To access the Manage Values page, select the value set from the Manage Value Sets page, and click **Manage Values**. Alternatively, click **Manage Values** from the Edit Value Set page.

Validation

The following types of validation are available for value sets:

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set

- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set doesn't present a list of valid values to users. Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

Note: For the Accounting Key Flexfield value sets, you must use independent validation only. If you use other validations, you can't use the full chart of accounts functionality, such as data security, reporting, and account hierarchy integration.

Security

Value set security only works in conjunction with usage within flexfield segments. You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

The application of value set security has the following conditions:

- At the value set level: The value set is the resource secured by data security policies. If a value set is secured, every usage of it in any flexfield is secured. It isn't possible to disable security for individual usages of the same value set.
- Applies to independent, dependent, or table-validated value sets.
- Applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security doesn't determine which descriptive flexfield data is shown upon querying.
- Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

Precision and Scale

If the data type of a value set is Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

Usage and Deployment

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.

For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

Protected Value Set Data

Application developers may mark some value sets as protected, indicating that you can't edit them.

You can edit only value sets that are not marked as protected. You can't edit or delete protected value sets. If the value set type supports values (such as independent, dependent or subset value sets), then you can't add, edit, or delete values.

> **Note:** There is no restriction on references to protected value sets. Value sets, protected or not, may be assigned to any flexfield segment. Likewise, other value sets may reference protected value sets; for example, an unprotected dependent value set may reference a protected independent value set.

Related Topics

- Flexfields and Value Sets: How They Work Together
- Chart of Accounts: How Its Components Fit Together
- Why can't I edit my flexfield or value set configuration?
- Defaulting and Deriving Segment Values: Explained
- What's the difference between a lookup type and a value set?

Defining Value Sets: Critical Choices

Validation and usage of value sets determine where and how users access valid values for attributes represented by flexfield segments.

Tip: As a flexfield guideline, define value sets before configuring the flexfield, because you can assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfield segments, you can create value sets when adding or editing a segment on the run time page where the flexfield appears.

The following aspects are important in defining value sets:

- Value sets for context segments
- Format-only validation
- Interdependent value sets
- Table validation
- Range
- Security
- Testing and maintenance

Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets.

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set cannot reference flexfield segments in the value set's WHERE clause other than the flexfield segment to which the value set is assigned.

Format Only Validation

The format only validation type enables users to enter any value, as long as it meets your specified formatting rules. The value must not exceed the maximum length you define for your value set, and it must meet any format requirements for that value set.

For example, if the value set permits only numeric characters, users can enter the value 456 (for a value set with maximum length of three or more), but can't enter the value ABC. A format only value set doesn't otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how may digits should follow the radix separator.

Interdependent Value Sets

Use an independent value set to validate data against a list that isn't stored in an application table, and not dependent on a subset of another independent value set. You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. Use a dependent value set to limit the list of values for a given segment based on the value that the user has defined for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of the states in the USA with values such as CA, NY, and so on. Then you define a dependent value set of cities in the USA with values such as San Francisco and Los Angeles that are valid for the independent value CA. Similarly, New York City and Albany are valid for the independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. Users don't have to select a value for another segment first to have access to the subset value set.

Independent, dependent, and subset value sets require a customized list of valid values. Use the Manage Values page to create and manage a value set's valid values and the order in which they appear.

> **Tip:** You can customize the Manage Value Sets page to capture additional attributes for each valid value by adding context-sensitive segments in a new context for FND_VS_VALUES_B descriptive field.

Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table, such as a table of supplier names. Specify the table column that contains the valid value. You can optionally specify the description and ID columns, a WHERE clause to limit the values to use for your set, and an ORDER BY clause.

If you specify an ID column, then the flexfield saves the ID value, instead of the value from the value column, in the associated flexfield segment. If the underlying table supports translations, you can enable the display of translated text by basing the value set's value column on a translated attribute of the underlying table. You should also define an ID column that is based on an attribute that isn't language-dependent so that the value's invariant ID (an ID that doesn't change) is saved in the transaction table. The run time displays the corresponding translated text from the value column for the run time session's locale.

Table validation lets you enable a segment to depend upon multiple prior segments in the same context structure. You cannot reference other flexfield segments in the table-validated value set's WHERE clause. That is, the WHERE clause cannot reference SEGMENT.segment_code or VALUESET.value_set_code.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it doesn't have bind variables. If it has bind variables, the assumption is that the values are unique in the value set. If you use table validated value sets for key flexfields, then you can't use all integration functionalities supported for key flexfields, such as:

- Data security
- Oracle Transactional Business Intelligence (OTBI)
- Extended Spread Sheet Database (ESSbase)
- Tree or hierarchy integration

To use these integration functionalities for key flexfields, you must use independent value sets only.

Range

In the case of format, independent, or dependent value sets, you can specify a range to limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range.

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100.

Security

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment users can view or modify.

To enable security on a value set, specify a database resource, typically the code value for the value set. Using the Manage Database Security Policies task, specify conditions, such as filters or SQL predicates, and policies that associate roles with conditions. You can use a filter for simple conditions. For more complex conditions, use a SQL predicate.

Value set data security policies and conditions differ from data security conditions and policies for business objects in the following ways:

- You can grant only read access to users. You cannot specify any other action.
- When defining a condition that is based on a SQL predicate, use VALUE, VALUE_NUMBER, VALUE_DATE, VALUE_TIMESTAMP, or VALUE_ID to reference the value from a dependent, independent, or subset value set. For table value sets, use a table alias to define the table, such as &TABLE_ALIAS category=70.

When you enable security on table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set must not assume anything about the bind variables. Instead the whole list of values must be available and you write the rule, for example, to permit x, or to permit y and z. By default in data security, all values are denied and show only rows to which access has been provided.

Testing and Maintenance

You don't have to define or maintain values for a table-validated value set, as the values are managed as part of the referenced table or independent value set, respectively.

You cannot manage value sets in a sandbox.

When you change an existing value set, the deployment status for all affected flexfields changes to Edited. You must redeploy all flexfields that use that value set to make the flexfields reflect the changes. In the UI pages for managing value sets, the value set's usages show which flexfields are affected by the value set changes.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select **Translatable**. This doesn't require you to provide translated values now, but you cannot change this option if you decide to provide them later.

Planning Value Sets: Points to Consider

The value sets you create and configure depend on the valid values on the business object attributes that will use the value set. When creating value sets, you first give the value set a name and description, and then define the valid values of the set.

The following aspects are important in planning value sets:

- List of values
- Plain text input
- Value ranges
- Value format specification
- Security

List of Values

You can use one of the following types of lists to specify the valid values for a segment:

- Table column
- Custom list. Also include a sub list.
- Dependent custom list

If the valid values exist in a table column, use a table value set to specify the list of values. To limit the valid values to a subset of the values in the table, use a SQL WHERE clause. Table value sets also provide some advanced features, such as enabling validation depending on other segments in the same structure.

Use an independent value set to specify a custom set of valid values. For example, you can use an independent value set of Mon, Tue, Wed, and so forth to validate the day of the week. You can also specify a subset of an existing independent value set as the valid values for a segment. For example, if you have an independent value set for the days of the week, then a weekend subset can be composed of entries for Saturday and Sunday.

Use a dependent value set when the available values in the list and the meaning of a given value depend on which independent value was selected for a previously selected segment value. For example, the valid holidays depend on which country you are in. A dependent value set is a collection of value subsets, with one subset for each value in a corresponding independent value set.

For lists of values type value sets, you can additionally limit the valid values that an end user can select or enter by specifying format, minimum value, and maximum value. For list of values type value sets, you can optionally implement value set data security. If the Oracle Fusion applications are running in different locales, you might need to provide different translations for the values and descriptions.

Plain Text Input

Use a format-only value set when you want to allow end users to enter any value, as long as that value conforms to formatting rules. For example, if you specify a maximum length of 3 and numeric-only, then end users can enter 456, but not 4567 or 45A. You can also specify the minimum and maximum values, whether to right-justify, and whether to zero-fill. With a format-only value set, no other types of validation are applied.

Value Ranges

You can use either a format-only, independent, or dependent value set to specify a range of values. For example, you might create a format-only value set with Number as the format type where the end user can enter only the values between 0 and 100. Or, you might create a format-only value set with Date as the format type where the end user can enter only dates for a specific year, such as a range of 01-JAN-93 to 31-DEC-93. Because the minimum and maximum values enforce these limits, you need not define a value set that contains each of these individual numbers or dates.

Value Format

Flexfield segments commonly require some kind of format specification, regardless of validation type. Before creating a value set, consider how you will specify the required format.

The following table shows options for validation type and value data type.

Option	Description
Value data type	Character, Number, Date, Date Time.
Value subtype	Text, Translated text, Numeric digits only, Time (20:08), Time (20:08:08). An additional data type specification for the Character data type for the Dependent, Independent, and Format validation types.
Maximum length	Maximum number of characters or digits for Character data type.
Precision	Maximum number of digits the user can enter.
Scale	Maximum number of digits that can follow the decimal point.
Uppercase only	Lowercase characters automatically changed to uppercase.
Zero fill	Automatic right-justification and zero-filling of entered numbers (affects values that include only the digits 0-9).

Note: You cannot change the text value data type to a translated text value subtype after creating a value set. If there is any chance you may need to translate displayed values into other languages, choose Translated text. Selecting the Translated text subtype doesn't require you to provide translated values.

Value Sets for Context Segments

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set cannot reference flexfield segments in the value set's WHERE clause other than the flexfield segment to which the value set is assigned.

Security

When enabling security on a value set, the data security resource name is an existing value set or one that you want to create. The name typically matches the code value for the value set. You cannot edit the data security resource name after you save your changes.

Related Topics

- Flexfields and Value Sets: How They Work Together
- Defaulting and Deriving Segment Values: Explained
- What's the difference between a lookup type and a value set?

Table-Validated Value Sets and Bind Variables: Points to Consider

After you assign a value set to a flexfield, you can use bind variables in the WHERE clause.

The following bind variables refer to flexfield elements:

- **:{SEGMENT.<segment_code>}**
- **:{CONTEXT.<context_code>;SEGMENT.<segment_code>}**
- **:{VALUESET.<value_set_code>}**
- **:{FLEXFIELD.<internal_code>}**
- **:{PARAMETER.<parameter_code>}**

Segment Code

:{SEGMENT.<segment_code>}

This bind variable refers to the ID or value of a segment where **<segment_code>** identifies the segment. Where referring to the ID, the value set is ID-validated. Where referring to the value, the value set isn't ID-validated. The data type of the bind value is the same as the data type of the segment's column.

For both descriptive and extensible flexfields, the segment must be in the same context as the source segment. The source segment contains the WHERE clause. For descriptive flexfields, if the segment is global, then the source segment must be global.

The segment must have a sequence number that is less than the sequence number of the target segment with this bind variable. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment. For example, the values to select from a CITIES table might depend upon the selected country. If SEGMENT1 contains the country value, then the WHERE clause for the CITIES table might be **<country_code> = :{SEGMENT.SEGMENT1}**.

Context Code

:{CONTEXT.<context_code>;SEGMENT.<segment_code>}

This bind variable, which is valid only for extensible flexfields, refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of a segment that is in a different context than the target segment (the segment with the WHERE clause).

- The **<context_code>** identifies the context and must be in the same category or in an ancestor category. It cannot be a multiple-row context.
- The **<segment_code>** identifies the segment. The data type of the bind value is the same as the data type of the segment's column.

Note: The target segment should appear in the UI after the source segment to ensure the source segment has a value. If the target segment's context is a single-row context, the source and target segments must be on separate pages and the target page must follow the source page.

The framework of extensible flexfields doesn't perform any additional validation related to mismatched values for segments defined with cross context bind parameters. Administrators must populate the correct pair of segment values.

This bind variable is useful when the set of valid values depends on the value of a segment in another context. For example, the values to select from a CERTIFICATION table for a segment in the Compliance and Certification context might depend on the value of the country segment in the Manufacturing context.

Value Set Code

:{VALUESET.<value_set_code>}

This bind variable refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of the segment that is assigned to the value set that is identified by the **value_set_code**. The data type of the bind value is the same as the data type of the segment's column.

The segment must have a sequence number that is less than the sequence number of the segment with this bind variable. If more than one segment is assigned to the value set, the closest prior matching segment will be used to resolve the bind expression. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment and that segment code can vary, such as when the value set is used for more than one context or flexfield. For example, the values to select from a CITIES table might depend upon the selected country. If the value set for the segment that contains the country value is COUNTRIES, then the WHERE clause for the CITIES table might be **<country_code> = :{VALUESET.COUNTRIES}**.

Flexfield Internal Code

:{FLEXFIELD.<internal_code>}

This bind variable refers to an internal code of the flexfield in which the value set is used, or to a validation date. The internal_code must be one of the following:

- APPLICATION_ID - the application ID of the flexfield in which this value set is used. The data type of APPLICATION_ID and its resulting bind value is NUMBER.
- DESCRIPTIVE_FLEXFIELD_CODE - the identifying code of the flexfield in which this value set is used. The data type of DESCRIPTIVE_FLEXFIELD_CODE and its resulting bind value is VARCHAR2. Note that you use this string for both descriptive and extensible flexfields.
- CONTEXT_CODE - the context code of the flexfield context in which this value set is used. The data type of CONTEXT_CODE and its resulting bind value is VARCHAR2.
- SEGMENT_CODE - the identifying code of the flexfield segment in which this value set is used. The data type of SEGMENT_CODE and its resulting bind value is VARCHAR2.
- VALIDATION_DATE - the current database date. The data type of VALIDATION_DATE and its resulting bind value is DATE.

Flexfield Parameters

:{PARAMETER.<parameter_code>}

This bind variable refers to the value of a flexfield parameter where parameter_code identifies the parameter. The data type of the resulting bind value is the same as the parameter's data type.

> **Note:** You cannot assign a table value set to a context segment if the WHERE clause uses VALUESET.value_set_code or SEGMENT.segment_code bind variables.

Table-Validated Value Set: Worked Example

In an application user interface, you want to display a list of values that allow customers to enter satisfaction scores. The value column name is 1, 2, 3, 4, 5 and the value column description is Extremely Satisfied, Satisfied, and so on. Users can pick the appropriate value or description which stores the corresponding name so the name value can be used in a calculation expression.

In this case, you can use the FND_LOOKUPS table as the basis for a table-validated value set. The lookup meaning corresponds to the Value Column Name and the lookup description corresponds to the Description Column Name. The properties of the value set are as follows:

Property	Value
FROM clause	FND_LOOKUPS
WHERE clause	lookup_type = 'CN_ XX_ CUST_ SATISFACT_ SCORE'
ID column	lookup_code
Value column	meaning
Description column	description
Enable Flag column	enabled_flag
Start Date column	start_ date_active
End Date column	end_ date_active
Order by	display_ sequence

After completing this task, you should have created your customer satisfaction value set for the Incentive Compensation page of your implementation project.

Creating a Value Set Based on a Lookup

1. From the Setup and Maintenance work area, find the Manage Value Sets task and click the **Go to Task** icon button.
2. On the Manage Value Sets page, click the **Create** icon button.
3. On the Create Value Set page, enter the following values:
   a. In the Value Set Code field, enter CN_XX_CUSTOMER_SATISFACTION_SCORES
   b. In the Description field, enter Customer satisfaction score.
   c. In the Module field, select **Search....**
   d. In the Search and Select: Module subwindow, enter `Incent` in the User Module Name field
   e. Select Incentive Compensation.
   f. Click **OK**.

4. On the Create Value Set page, enter the following values:
   a. In the Validation Type field, select Table.
   b. In the Value Data Type field, select Character.
   c. In the Definition section FROM Clause field, enter FND_LOOKUPS.
   d. In the Value Column Name field, enter DESCRIPTION.
   e. In the Description Column Name field, enter MEANING.
   f. In the ID Column Name field, enter LOOKUP_CODE.
   g. In the Enabled Flag Column Name field, enter 'Y'.
   h. In the Start Date Column Name field, enter START_DATE_ACTIVE.
   i. In the End Date Column Name field, enter END_DATE_ACTIVE.
   j. In the WHERE Clause field, enter LOOKUP_TYPE = 'CN_XX_CUST_SATISFACT_SCORE'.
5. Click **Save and Close**.
6. In the Manage Value Sets page, click **Done**.

Adding Attributes to the Manage Value Sets Page: Procedures

You can add attributes to independent, dependent, and subset value sets. The attributes appear on the Manage Value Sets page where you can store additional information about each valid value. To display attributes on an application page, you must programmatically modify the application.

To add attributes and subsequently view them on the Manage Value Sets page, perform the following steps:

1. Using the Manage Descriptive Flexfields task, find the FND_VS_VALUES_B flexfield and open it for editing.
2. Click **Manage Contexts**.
3. Create a new context and use the value set code for the context code.
4. Add new attributes as context-sensitive segments and save the changes.
5. Deploy FND_VS_VALUES_B to run time.
6. Sign out and sign back in.
7. Open the Manage Value Sets page to view the new attributes.

Importing Value Set Values: Procedure

You can import a file containing values that you want to edit or add to a given independent or dependent value set.

For example, uploading a hundred values may be more efficient than creating them individually using the Manage Value Sets task. However, for just a few values, it may be quicker to perform the relevant tasks.

Importing Value Set Values

To import value set values:

1. Create a flat file containing the values in the value set that you want to add or update.

Note:

- When creating the file, you must specify an existing value set code to which you want to add values or edit existing values. If the value set does not exist, add the value set using the appropriate Manage Value Sets setup task in the Setup and Maintenance work area.
- The file that you create must adhere to the formatting and content requirements for creating flat files containing value set values.

2. Upload the flat file to the content repository using the Files for Import and Export page.
3. Import the file using the appropriate Manage Value Sets setup task in the Setup and Maintenance work area. To import the file:
   a. Click **Actions - Import** in the Manage Value Sets page.
   b. In the File Name field, enter the name of the flat file you uploaded using the Files for Import and Export page.
   c. In the Account field, select the user account containing the flat file.
   d. Click **Upload**.

Note: Alternatively, you can import the file using either of the following methods:

- Run the Upload Value Set Values scheduled process.
- Use the Applications Core Metadata Import web service. For more information on the Applications Core Metadata Import web service, see the SOAP Web Services guide for your cloud services.

Related Topics

- Files for Import and Export: Explained

Requirements for Flat Files to Upload Value Set Values: Explained

You can import large volumes of value set value data from the content repository. To upload value set values to the content repository, create a flat file containing the values in the value set that you want to add or update. You upload these flat files to the content repository using the Files for Import and Export page.

General Requirements

The first line of the flat file must contain the column names for the value set value data, including all mandatory columns, and separated by the '|' (pipe) character. Each subsequent line should contain a row of data specified in the same order as the column names, also separated by the '|' character.

The requirements for creating flat files vary with the type of value sets:

- Independent value sets
- Dependent value sets

Independent Value Set

A flat file for uploading values for independent value sets must contain the following mandatory columns:

Column Name	Data Type
ValueSetCode	VARCHAR2(60)

Column Name	Data Type
Value	VARCHAR2(150)
Enabled Flag	VARCHAR2(1), Y or N

Note: You can also specify optional columns.

Examples:

- To upload values to a COLORS independent value set with the minimum columns, you can use the following flat file:

```
ValueSetCode | Value | EnabledFlag
COLORS | Red | Y
COLORS | Orange | Y
COLORS | Yellow | Y
```

- To upload values to a STATES independent value set with more (optional) columns, you can use the following flat file:

```
ValueSetCode | Value | Description | EnabledFlag
STATES | AK | Alaska | Y
STATES | CA | California | Y
STATES | WA | Washington | Y
```

Dependent Value Sets

A flat file for uploading values for dependent value sets must contain the following mandatory columns:

Column Name	Data Type
Value Set Code	VARCHAR2(60)
Independent Value	VARCHAR2(150)
Value	VARCHAR2(150)
Enabled Flag	VARCHAR2(1), Y or N

Note: You can also specify optional columns.

Example:

To upload values to a CITIES dependent value set (dependent on the STATES independent value set), you can use the following flat file:

```
ValueSetCode | IndependentValue | Value | EnabledFlag
CITIES | AK | Juneau | Y
CITIES | AK | Anchorage | Y
CITIES | CA | San Francisco | Y
CITIES | CA | Sacramento | Y
CITIES | CA | Los Angeles | Y
```

```
CITIES | CA | Oakland | Y
```

Additional Optional Columns

In addition to the mandatory columns, you can add the following optional columns for both dependent and independent value sets:

Column Name	Type
Translated Value	VARCHAR2(150), for use in value sets that are translatable
Description	VARCHAR2(240)
Start Date Active	DATE, formatted as YYYY-MM-DD
End Date Active	DATE, formatted as YYYY-MM-DD
Sort Order	NUMBER(18)
Summary Flag	VARCHAR2(30)
Flex Value Attribute1 ... Flex Value Attribute20	VARCHAR2(30)
Custom Value Attribute1 ... Custom Value Attribute10	VARCHAR2(30)

Related Topics

- Files for Import and Export: Explained

Upload Value Set Values Process

This process uploads a flat file containing value set values for flexfields. You can use this scheduled process to upload a file containing values you want to edit or add to an existing independent or dependent value set. This process is useful for adding or updating large volumes of value set value data in an automated or recurring fashion. For example, you can upload a hundred values on a recurring basis when scheduled as a recurring process. This method may be more efficient than using the one-time Import action in the Manage Value Sets tasks in the Setup and Maintenance work area. However, for an ad hoc task of uploading a hundred values, it may be quicker to use the Import action in the relevant tasks.

Run this process from the Scheduled Processes Overview page. You can run it on a recurring basis whenever the flat file in the content repository account is updated.

You must create the flat file containing the values data, and upload the flat file to the content repository using the Files for Import and Export page.

Parameters

Flat File Name

Enter the name of the flat file you uploaded using the Files for Import and Export page.

Account

Select the user account containing the flat file in the content repository to upload.

Related Topics

- Files for Import and Export: Explained
- Scheduled Processes: Explained

Translating Flexfield and Value Set Configurations: Explained

When you first configure a flexfield or segment, the translatable text that you enter, such as prompts and descriptions, is stored as the text for all installed locales. You may then provide a translation for a particular locale. If you don't provide a translation for a given locale, then the value that was first entered is used for that locale.

To translate the text for a particular locale, log in with that locale or specify the locale by selecting **Settings and Actions - Personalization - Set Preferences** in the global area. Then, update the translatable text in the flexfield using the Manage Descriptive Flexfields task, Manage Key Flexfields task, or Manage Extensible Flexfields task. Your modifications change the translated values only for the current session's locale.

After you complete the translations, deploy the flexfield.

You can define translations for a dependent value set or an independent value set, if it is of type Character with a subtype of Translated text. You define the translations by setting the current session to the locale for which you want to define the translation and using the Manage Value Sets task to enter the translated values and descriptions for that locale.

For a table value set for which the underlying table supports multiple languages and for which the value set's value column is based on a translated attribute of the underlying table, you can define translated values using the maintenance task for the underlying table. For more information on using multilanguage support features, see the Oracle Fusion Applications Developer's Guide.

FAQs for Manage Project Portfolio Management Value Sets

What happens if a value set is security enabled?

Value set security is a feature that enables you to secure access to value set values based on the end user's role in the system.

As an example, suppose you have a value set of US state names. When this value set is used to validate a flexfield segment, and users can select a value for the segment, you can use value set security to restrict them to selecting only a certain state or subset of states based on their assigned roles in the system.

For example, Western-region employees may choose only California, Nevada, Oregon, and so on as valid values. They cannot select non-Western-region states. Eastern-region employees may choose only New York, New Jersey, Virginia, and so on as valid values, but cannot select non-Eastern-region states. Value set security is implemented using Oracle Fusion Applications data security.

How can I set a default value for a flexfield segment?

When you define or edit a flexfield segment, you specify a default value from the values provided by the value set assigned to that segment.

You can set the default value for a descriptive flexfield segment to be a parameter, which means the entity object attribute to which the chosen parameter is mapped provides the initial default value for the segment.

You can set the default value to be a constant, if appropriate to the data type of the value set assigned to the segment.

In addition to an initial default value, you can set a derivation value for updating the attribute's value every time the parameter value changes. The parameter you choose identifies the entity object source attribute. Any changes in the value of the source attribute during run time are reflected in the value of the segment.

If the display type of the segment is a check box, you can set whether the default value of the segment is checked or unchecked.

Related Topics

- Defaulting and Deriving Segment Values: Explained

Manage Descriptive Flexfields

Descriptive Flexfields: Explained

Use descriptive flexfields to add custom attributes to business object entities, and define validation for them.

All the business object entities that you can use in the application are enabled for descriptive flexfields. However, configuring descriptive flexfields is an optional task.

Context

A descriptive flexfield can have only one context segment to provide context sensitivity. The same underlying database column can be used by different segments in different contexts.

For example, you can define a Dimensions context that uses the following attributes:

- ATTRIBUTE1 column for height
- ATTRIBUTE2 column for width
- ATTRIBUTE3 column for depth

You can also define a Measurements context that uses the same columns for other attributes:

- ATTRIBUTE1 column for weight
- ATTRIBUTE2 column for volume
- ATTRIBUTE3 column for density

Segments and Contexts

Descriptive flexfield segments are of the following types:

Segment Type	Run Time Appearance
Global segment	Always available
Context segment	Determines which context-sensitive segments are displayed
Context-sensitive segment	Displayed depending on the value of the context segment

In the figure, a descriptive flexfield has one context segment called Category for which there are three values: Resistor, Battery, and Capacitor. Additionally, the descriptive flexfield comprises two global segments that appear in each context, and three context-sensitive segments that only appear in the specific context.

Application development determines the number of segments available for configuring. During implementation, configure the flexfield by determining the following:

- Attributes to add using the available segments
- Context values
- The combination of attributes in each context

Value Sets

For each global and context-sensitive segment, you configure the values permitted for the segment. Based on it, the values that end users enter are validated, including interdependent validation among the segments.

Protected Descriptive Flexfield Data

Application developers may mark some data configurations in a descriptive flexfield as protected, indicating that you can't edit them.

Related Topics

- Managing Flexfields: Points to Consider
- How can I access predefined flexfields?

Planning Descriptive Flexfields: Points to Consider

Once you have identified a flexfield to configure, plan the configuration in advance. Compile a list of the UI pages and other artifacts in your deployment that are affected by the configuration. Verify that you are provisioned with the roles needed to view and configure the flexfield. View the flexfield using the Highlight Flexfields command in the Administration menu while viewing the run time page where the flexfield appears. Plan how you will deploy the flexfield for test and production users. Review the tools and tasks available for managing flexfields, such as the Define Flexfields task list, Manage Sandboxes, and Highlight Flexfields for adding and editing flexfield segments.

Planning a descriptive flexfield can involve the following tasks:

1. Identify existing parameters.
2. Identify existing context values and whether the context value is derived.
3. Identify custom attributes and plan the descriptive flexfield segments, segment properties, and structure.
4. Plan validation rules.
5. Plan initial values.
6. Plan attribute mapping to Oracle Business Intelligence objects.

Identify Existing Descriptive Flexfield Parameters

Some descriptive flexfields provide parameters that can be used to specify the initial value of a descriptive flexfield segment. The parameter is external reference data, such as a column value or a session variable. For example, if a flexfield has a user email parameter, you can configure the initial value for a customer email attribute to be derived from that parameter.

Review the list of available parameters in the **Derivation Value** field in the Create Segment page for a descriptive flexfield. If you decide to use one of the parameters to set an initial value, select that parameter from the **Derivation Value** drop-down list when you add the descriptive flexfield segment.

Evaluate Whether the Context Value Is Derived

The context value for a descriptive flexfield might have been preconfigured to be derived from an external reference. For example, if the context is Marriage Status, then the value might be derived from an attribute in the employee business object. When the context value is derived, you might need to take the derived values and their source into consideration in your plan.

To determine whether the context value is derived, access the Edit Descriptive Flexfield task to view the list of configured context values for the flexfield. The Derivation Value field in the Context Segment region displays a list of available parameters. If context values have been preconfigured, see Oracle Applications Cloud Help for product-specific information about the use of those values.

Plan the Segments, Segment Properties, and Structure

Identify the custom attributes you need for a business object to determine the segments of the descriptive flexfield. Determine the segment properties such as the prompt, display type, or initial value.

The structure of the descriptive flexfield is determined by its global, context, and context-sensitive segments. Plan a global segment that captures an attribute for every instance of the business object. Plan a context for segments that depend on a condition of situation applying to a particular instance of the business object. Plan context-sensitive segments to capture attributes that are relevant in the context.

There is only one context segment available for descriptive flexfields. If you have more than one group of custom attributes where you could use the context segment, you will have to pick one group over the others, based on your company's needs and priorities, and add the other custom attributes as global segments.

Plan Validation Rules

Define each segment's validation rules and check if value sets exist for those rules or you must create new ones. If you must create a value set, you can create it either before configuring the flexfield or while creating or editing a segment.

When determining a segment's validation rules, consider the following questions:

- What is the data type - character, date, date and time, or number?
- Does the segment require any validation beyond data type and maximum length?
- Should a character type value be restricted to digits, or are alphabetic characters allowed?
- Should alphabetic characters automatically be changed to uppercase?
- Should numeric values be zero-filled?
- How many digits can follow the radix separator of a numeric value? In base ten numerical systems the radix separator is decimal point.
- Does the value need to fall within a range?
- Should the value be selected from a list of valid values? If so, consider the following questions:
  - Can you use an existing application table from which to obtain the list of valid values, or do you need to create a custom list?
  - If you are using an existing table, do you need to limit the list of values using a WHERE clause?
  - Does the list of valid values depend on the value in another flexfield segment?
  - Is the list of valid values a subset of another flexfield segment's list of values?

Plan Initial Values

For every segment, list the constant value or SQL statement, if any, to use for the initial value of the custom attribute.

Plan How Segments Map to Oracle Business Intelligence Objects

You can extend descriptive flexfields into Oracle Transactional Business Intelligence (OTBI) for ad hoc reporting purposes. Determine the descriptive flexfield segments to be made available for reporting, and select the **BI Enabled** check box accordingly on the Manage Descriptive Flexfields page. You must run a process to extend the BI enabled segments into OTBI. For more information about extending the BI enabled segments into OTBI, see the Setup and Configuration chapter in the Oracle Transactional Business Intelligence Administrator's Guide.

Depending on the reporting needs, you may map similar context-sensitive attributes from different contexts to the same attribute in OTBI. For example, there may be a segment tracking the Product Color attribute in different contexts of a context sensitive descriptive flexfield. You can use segment labels to map these context-sensitive attributes together by defining a segment label and updating the BI Label list accordingly.

Related Topics

- Flexfield Segment Properties: Explained
- Defaulting and Deriving Segment Values: Explained

Managing Descriptive Flexfields: Points to Consider

Configuring descriptive flexfields involves managing the available flexfields registered with your Oracle Applications Cloud database and configuring their flexfield-level properties, defining and managing descriptive flexfield contexts, and configuring global and context-sensitive segments.

Every descriptive flexfield is registered to include a context segment, which you may choose to use or not.

In general, configuring descriptive flexfields involves:

1. Creating segment labels for business intelligence enabled flexfields.
2. Configuring global segments by providing identity information, the initial default value, and the display properties.
3. Configuring the context segment by specifying the prompt, whether the context segment should be displayed, and whether a value is required.
4. Configuring contexts by specifying a context code, description, and name for each context value, and adding its context-sensitive segments, each of which is configured to include identifying information, the column assignment, the initial default value, and the display properties.

The following aspects are important in understanding descriptive flexfield management:

- Segments
- Adding segments to highlighted descriptive flexfields
- Usages
- Parameters
- Delimiters
- Initial Values
- Business Intelligence

Segments

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order. You cannot enter a number for one segment that is already in use for a different segment.

Value sets are optional for context segments and follow specific guidelines:

- The value set that you specify for a context segment consists of a set of context codes.
- Each context code corresponds to a context that is appropriate for the descriptive flexfield.
- The value set must be independent or table-validated.
- If table-validated, the WHERE clause must not use the VALUESET.value_set_code or SEGMENT.segment_code bind variables.
- The value set must be of data type Character with the maximum length of values being stored no larger than the context's column length.
- If you don't specify a value set for a context segment, the valid values for that context segment are derived from the context codes. The definition of each context segment specifies the set of context-sensitive segments that can be presented when that context code is selected by the end user.

- For reasons of data integrity, you cannot delete an existing context. Instead, you can disable the associated context value in its own value set by setting its end date to a date in the past.
- You can configure the individual global segments and context-sensitive segments in a descriptive flexfield. These segment types are differentiated by their usage, but they are configured on application pages that use most of the same properties.

Adding Segments to Highlighted Descriptive Flexfields

When you highlight flexfields on a run time page and use an **Add Segment** icon button to create a segment, the segment code, name, description, table column, and sequence number are set automatically. If you use an **Add Segment** icon button to configure descriptive flexfield segments, you cannot use an existing value set. Value sets are created automatically when you add the segments. You can enter the valid values, their descriptions, and the default value or specify the formatting constraints for the value set, such as minimum and maximum values.

Depending on display type, the value set you create with the **Add Segment** icon button is either an independent value set or a format-only value set. The table shows which type of value set is created depending on the segment display component you select.

Display Component	Value Set Created with Add Segment
Check Box	Independent
Drop-down List	Independent
List of Values	Independent
Radio Button Group	Independent
Text Field With Search	Independent
Text box	Format Only
Text area	Format Only
Date/Time	Format Only

Tip: After you add a context value, refresh the page to see the new value.

Usages

Descriptive flexfield usages allow for the same definition to be applied to multiple entities or application tables, such as a USER table and a USER_HISTORY table. Descriptive flexfield tables define the placeholder entity where the flexfield segment values are stored once you have configured the descriptive flexfield. When you configure a flexfield, the configuration applies to all its usages.

Parameters

Some descriptive flexfields provide parameters, which are attributes of the same or related entity objects. Parameters are public arguments to a descriptive flexfield. Parameters provide outside values in descriptive flexfield validation. You use parameters to set the initial value or derivation value of an attribute from external reference data, such as a column value or

a session variable, rather than from user input. Parameters can be referenced by the logic that derives the default segment value, and by table-validated value set WHERE clauses.

Delimiters

A segment delimiter or separator visually separates segment values when the flexfield is displayed as a string of concatenated segments.

Initial Values

The SQL statement defining an initial value must be a valid statement that returns only one row and a value of the correct type.

You can use two types of SQL statements:

- SQL statement with no binding. For example, select MIN(SALARY) from EMPLOYEES.
- SQL statement with bind variables. You can use the following bind variables in the WHERE clause of the SQL statement.
  - **:{SEGMENT.**<segment_code>**}**: Identifies a segment in the same context.
  - **:{CONTEXT.**<context_code>**;SEGMENT.**<segment_code>**}**: Identifies a segment in a different context. The context must be in the same category or in an ancestor category, and it cannot be a multiple-row context.
  - **:{VALUESET.**<value_set_code>**}**: Identifies the closest prior segment in the same context that is assigned to the specified value set.
  - **:{FLEXFIELD.**<internal_code>**}**: Identifies a flexfield.

For more information about using bind variables, see the help for value sets.

Business Intelligence

Selecting a global, context, or context-sensitive segment's BI Enabled check box specifies that the segment is available for use in Oracle Business Intelligence.

When the flexfield is imported into Oracle Business Intelligence, the label you selected from the BI Label drop-down list equalizes the segment with segments in other contexts, and maps the segment to the logical object represented by the label.

Related Topics

- Defaulting and Deriving Segment Values: Explained
- Flexfield Segment Properties: Explained
- Why can't I edit my flexfield or value set configuration?

Enabling Descriptive Flexfield Segments for Business Intelligence: Points to Consider

A descriptive flexfield that is registered in the database as enabled for Oracle Business Intelligence (BI) includes a BI Enabled setting for each of its segments. When a global, context, or context-sensitive segment is BI-enabled, it is available for use in Oracle Business Intelligence.

The following aspects are important in understanding BI-enabled flexfield segments:

- Flattening business components to use BI-enabled segments in Oracle BI

- Equalizing segments to prevent duplication and complexity in the flattened component
- Mapping attributes of flattened business components to logical objects in Oracle BI
- Managing the labels that map segments to logical objects in Oracle BI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process to import the flexfield changes into the Oracle Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For example, a user can generate a report that includes attributes added by the descriptive flexfield. For additional information about logical objects and import, refer to the Oracle Transactional Business Intelligence Administrator's Guide.

Flattening

When you deploy a business intelligence-enabled descriptive flexfield, the deployment process generates an additional set of flattened Application Development Framework (ADF) business components in addition to the usual ADF business components and ADF faces run time artifacts that are generated during deployment. The flattened business components include attributes for business intelligence-enabled segments only. Flattening means each custom column in each context shows up as an attribute in an Oracle Business Intelligence folder.

Flattened components include one attribute for the BI-enabled context-segment, and one attribute for each business intelligence-enabled global segment. For BI-enabled context-sensitive segments, consider the following:

- If you assigned a label to the segment, the flattened components include an additional single attribute representing segments with that label.
- If you didn't assign a label, the flattened components include a discrete attribute for each BI-enabled context-sensitive segment in each context.

Mapping to Logical Objects in Business Intelligence

You can simplify reporting by representing similar segments as a single logical object in Business Intelligence.

If you assign a label to any set of context-sensitive segments that serve the same purpose in different contexts, you can consolidate or equalize the segments into a single attribute. This prevents duplication and the extra workload and complexity that result from the flattening process. For example, a United States context might have a Passport segment and a Canada context might have Visa segment. If you assign the NationalID segment label to both the Passport and Visa segments, they are equalized into the same NationalID attribute in the flattened business component.

Non-labeled context-sensitive segments aren't equalized across context values, so the flattened components include a separate attribute for each context-sensitive segment for each context value. It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

Assign a label to a global segment, context segment, or context-sensitive segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

> **Note:** Assigning a label to a context-sensitive segment serves to equalize the attribute across contexts, as well as map the equalized attribute to business intelligence.

Managing Labels

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the

steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across contexts.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label doesn't exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, context-sensitive segments without labels cannot be equalized across context values. The flattened components include a separate attribute for each non-labeled context-sensitive segment in each context.

Importing to Oracle Business Intelligence Repository

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly flattened business components in business intelligence and then propagate the flexfield object changes. When you import the metadata into the Oracle Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user.

To import flexfield changes into the Oracle Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process. For additional information about import, refer to the Oracle Transactional Business Intelligence Administrator's Guide.

> **Note:** When you import a flexfield into the Oracle Business Intelligence repository, you see both `<name>_` and `<name>_c` attributes for each segment, along with some other optional attributes. The `<name>` attribute contains the value. The `<name>_c` attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

Related Topics

- Enabling Key Flexfield Segments for Business Intelligence: Points to Consider

FAQs for Manage Descriptive Flexfields

Can I display the context segment in the project Cost Collection flexfield?

No. The context segment is predetermined for each page. Displaying it and changing the value may result in capture of data that is not applicable for the current transaction.

Manage Messages

Messages: Explained

Messages provide users with information about business or application errors or warnings.

Typically, messages inform the users about the following:

- Missing or incorrect data
- Status of an application, page, or a business object
- Status of an ongoing process

- Result of a user action

Besides notifying users about the problem, messages provide guidance to users on taking corrective action. Messages also warn users about the consequences of a certain action.

Oracle provides a set of predefined messages that are stored in a message dictionary. To create additional messages or modify the existing ones, use the Manage Messages task in the Setup and Maintenance work area.

Note: Don't delete predefined messages unless you are sure that they aren't used anywhere.

Message Dictionary

The message dictionary stores messages that the application requires at run time. Messages are predefined for specific applications and modules, but a few are common messages that can be used in any application or module.

When you create messages, use the message text and the following components to cover additional details addressing users and help desk personnel:

- User Details: A detailed explanation of the message short text meant for users.
- Administrator Details: Details of the identified problem meant for the help desk personnel. The end users don't see this text.
- Cause: An end-user version of the cause of error.
- User Action: Instructions to users for addressing the identified problem. Where there is no guidance for end users, they must approach the help desk.
- Administrator Action: Corrective action that help desk personnel must take to correct the problem. This information is not available to the end users.

Message Types: Explained

All messages must be associated with a message type. You can select the message type based on the message severity.

The available message types are:

- Error
- Warning
- Information
- UI String

Error Messages

Use the Error message to inform users about, for example, entering incorrect data or performing actions that trigger validation. Error messages also inform users how to correct the situation so that they can continue with their task.

For example: You cannot specify a task without specifying the project.

Error messages also tell users about any serious problem with the application or process, and when they must seek assistance from the help desk. Some error messages trigger incidents or logs and have a mechanism to notify the help desk automatically.

Warning Messages

Use the Warning message type to inform users about an application condition or a situation that might require their decision before they can continue.

Warning messages:

- Describe the reason for the warning and potential consequence of the selected or intended user action.
- Can be either a question or a statement.

For example: You delete the primary user. Do you want to continue?

The message is usually followed by Yes and No buttons.

Information Messages

The Information message type tells users about changes in the application, a page, or a business object. These messages aren't triggered by users, and they don't have to take any immediate action in response.

For example: No events have been started or processed for this employee.

Use the Information message type to communicate information that is neither an error nor a warning.

UI String Messages

Use the UI string message type to store shorter messages such as UI prompts, titles, or translated text, in the message dictionary.

Grouping Messages by Category and Severity: Explained

You can group messages by severity to internally define logging and classifying incident policies. You can group by category based on the functionality or program.

Category and severity values do not appear in logging entries, incidents, or on the UI.

> **Note:** The values in both options are predefined lookups but you can customize them. However, the maximum size of this field is 30 characters.

In the Setup and Maintenance work area, search for the Manage Messages task and use it to group the messages while creating or editing messages.

Group by Category

Use it to group messages that relate to one functionality, such as a scheduled process, together into one category. Select one of the predefined categories to enable automatic incident creation when the error message activates. By default, the following categories are available:

- **Product**: Issues related to product functionality, setup, and maintenance. Such messages are typically intended for functional administrators or product super users.
- **System**: Issues concerning the application, database, technology stack, and so on. Such messages are typically intended for technical users such as application administrators or database administrators.
- **Security**: Issues concerning permissions, access, compliance, passwords, and so on. Such messages are typically intended for security administrators.

Group by Severity

This grouping attribute is very specific and indicates the severity of the message. You must set the severity to High to enable automatic incident creation for the message. The following are predefined values, but you can add more if required.

- **High**: Used for serious messages that completely stop the progress of an important business process or affect a large user community, and require help desk's attention. Use this option to enable implicit incident creation for the message.
- **Medium**: Used for less severe and more isolated messages.
- **Low**: Used when you can't determine whether the message has a negative impact on end users or business processes.

Logging and Incidents

Select the **Logging Enabled** check box to include the UI message in the stored log file. To enable automatic incident creation when the error message appears on the UI, set the severity to High.

Incidents collect information about the application errors for which users may require assistance from help desk. An incident contains information about the state of the application at the time the problem occurred. Help desk can use the information in the incidents to resolve the problems.

You may examine the stored logs and incidents (not available in Oracle Cloud implementations). To understand more about incidents and log files, refer to the Oracle Fusion Applications Administrator's Guide.

Related Topics

- What's an incident?
- Diagnostic Tests: Examples
- Diagnostic Tests: Highlights
- Lookups: Explained

Creating and Editing a Message: Procedure

You may edit predefined messages stored in the message dictionary or create custom messages.

In the Setup and Maintenance work area, search for and open the Manage Messages task.

Creating a Message

To create a message, perform the following steps:

1. On the Manage Messages page, click the **New** icon.
2. On the Create Message page, enter details under each section.
3. In the Message Properties section:
   a. Enter a unique message name that helps you find your custom messages and avoid name conflicts with predefined messages. Use underscore as a separator if the name contains multiple parts.
   b. Select the application and module to associate the message with.
   c. Enter a unique number that can be used as an identifier for the message. Users can quote this number when they contact the help desk for assistance.

> **Note:** You may use any number between 10,000,000 and 10,999,999. This number range is allocated for your custom messages. At run time, this number appears along with the application code after the message text, for example FND-2774.

d. In the Translation Notes field, enter a description of the message indicating its use.
e. Select the relevant message type, category, and severity.
f. Select the **Logging Enabled** check box to create incidents or logs when messages appear on the UI.

4. In the Message Text section:

   a. In the Short Text field, provide the actual message text that appears on the page at run time.

      The short text can include tokens that are placeholders for displaying dynamic values at run time. However, to support easy translation, keep the message length (including values of tokens) under 160 characters in American English.

   b. In the User Details field, enter information for the users to know why the message appeared. You can also include information for the users to resolve the issue themselves.

      If your Short Text component has tokens that expand the text beyond the 160-character limit, move that portion of text here.

   c. In the Administrator Details field, provide a detailed technical explanation of the message. This field is only visible to the help desk.
   d. In the Cause field, provide a concise explanation of why the message appears. This text is visible to the users.

      This information is optional and is only applicable to messages of type Error and Warning. However, if you mention the cause, you must mention in the User Action field the action that users must take.

   e. In the User Action field, enter the user action to guide the users with steps to respond to the message and complete the task.
   f. In the Administrator Action field, provide information that the help desk can use to resolve the problem.

5. In the Message Tokens section, define tokens that you want to use in this message.
6. Click **Save and Close**.

Editing a Message

You may edit a predefined message or a custom message that you created.

To edit a message, search for a message on the Manage Messages page and perform the following steps:

1. Select the existing message and click the **Edit** icon.
2. On the Edit Message page, modify the existing details as per the instructions provided in the Creating a Message procedure.

   > **Note:** Don't edit the message number for predefined messages.

3. Click **Save and Close**.

Using Tokens in Messages: Points to Consider

Certain messages must display variable information at run time to help users clearly relate to the actual data and perform the required action. You can use tokens to contain variable values at run time, instead of writing a unique message for every possible situation.

Tokens are programmatic parts of message text that are placed within curly brackets when creating the message. Tokens serve as placeholders for the actual data. At run time, tokens dynamically display the actual text or value in the message, making a message specific to the situation. For example, the message "Enter an effective date that is the same as or later than **{MATURITY_DATE}**" contains the token **{MATURITY_DATE}**. At run time, instead of the token, the represented value (the actual date) appears. Thus, users see the message "Enter an effective date that is the same as or later than 25-APR-2015".

Use the Manage Messages task in the Setup and Maintenance work area to create and manage tokens. You must edit a message to define tokens for it. You can create tokens for a message and also delete them. However, you can't edit or delete the predefined tokens.

Token Definition

To define a token, you must provide the following information:

- A unique name for the token.
- The type of data that the token replaces at run time. Available types are Date, Number, or Text.
- A description about what the token represents at run time.

Guidelines

Follow these general guidelines while defining tokens:

- Use curly brackets and all uppercase letters for the token names.
- Use underscore as a separator for a name containing two words or more.
- Don't use a space between words.

Follow these specific guidelines for each token data type.

Data Type	Guideline
Text	Use tokens for substituting any variable text element that qualifies as a noun.
Number	Plan carefully while using tokens for numbers especially, where a token could refer to either a singular or a plural number. You can use tokens for numbers representing an order, customer, or any other business object bearing a numeric value.
Date	Clearly define the context of the date, such as the start date, or end date, or a date range.

Common Messages: Points to Consider

Message names that begin with FND_CMN are common messages. Each common message can appear in multiple places in any product family across Oracle Fusion Applications. For example, the FND_CMN_NEW_SRCH message can be used

for any search to indicate that no results were found. Common messages of type error or warning are part of the message dictionary.

Creating and Editing Common Messages

You can create custom common messages for use in multiple places. However, ensure that you follow the predefined naming convention and numbering series associated with the application or module.

> **Note:** Don't use FND_CMN as the prefix for your custom messages because all the predefined common messages begin with it.

Common messages can be used in any application. Therefore, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, ensure that the text is generic and applies to the entire site of Oracle Fusion Applications implementation.

FAQs for Manage Messages

How can I make message components visible only to specific users?

Use the Manage Administrator Profile Values task to determine the visibility of the message components. For the **Message Mode** profile option, set the profile value to either User or Administrator. Based on the set value, the administrator or user actions and details appear for the intended audience.

However, the message components are visible to the audience based on their predefined access rights. Anyone having a user level access can't view the Administrator message components. If you set the profile value to the administrators of a specific product, the message components are visible only to that specific audience.

> **Note:** If you don't set any value to the profile option, the visibility of the message component is determined by the default profile option settings.

Related Topics

- Setting Profile Option Values: Procedure

Manage Attachment Categories

Attachments: Explained

You can use attachments to provide supplementary information to specific business objects. Attachments can be URLs, desktop files, text, or repository folders. For a business object you may view, create, delete, or edit attachments, depending on your role and granted privileges. For more information on attachments, see the Oracle Fusion Applications Developer's Guide.

Repository

Attachments are stored in a content management repository provided by Oracle WebCenter Content Server. Users managing attachments can't interact with the repository unless the repository mode is enabled. When enabled, users can share

attachments among objects, update attachments, and perform other tasks. Access to the attachment files is controlled by a digital signing mechanism.

Security

Data security applicable to a specific business object extends to its attachments For example, if a user has no access to a specific expense report, then that user cannot access its attachments. You can also use attachment categories to control access and actions on attachments, based on roles associated with that category. For more information on securing attachments, see the Oracle Fusion Applications Developer's Guide.

Attachment Entities: Explained

An attachment entity is usually a database entity, for example a table or view, that represents a business object with which attachments can be associated. Each attachment UI must be defined with a corresponding attachment entity. Attachment entities are used only in the context of attachments and exist separately from the database entities that they are based on.

In the Setup and Maintenance work area, search for the Manage Attachment Entities task. Use the Manage Attachment Entities page to edit and create attachment entities. You can either use the predefined attachment entities with attachment UIs or create entities, for example when developing custom UIs.

The entity name should match the name of the table or view that represents the business object used for attachment. The name is also used in the repository folder that is automatically created to store attachments for the entity.

The data security policies associated with the database resource defined for the attachment entity apply to attachments for that entity. However, the security setting must be enabled for that entity. The database resource value must match the value in the OBJ_NAME column in the FND_OBJECTS table for the business object that the entity represents.

Related Topics

- Modules in Application Taxonomy: Explained
- Database Resources and Data Security Policies: How They Work Together

Attachment Entities and Attachment Categories: How They Work Together

The association between attachment entities and categories determines the use of categories for an entity. For example, categories associated with the expense report attachment entity are available in the attachment UIs for expense reports. You can configure the associations when managing either entities or categories. Between the Manage Attachment Entities and Manage Attachment Categories pages, any change in association on one page automatically reflects on the other page. You can open either page by starting in the Setup and Maintenance work area and searching for the attachment tasks.

Managing Entities

On the Manage Attachment Entities page, you determine which attachment categories are relevant to a particular entity. Each entity must have at least one category. For a particular expense report page with attachments functionality, you can specify which category to use for the attachment. Accordingly, the data security defined for each category is applied to the attachments on that page if security is enabled.

Managing Categories

If you create an attachment category and must assign it to multiple attachment entities, use the Manage Attachment Categories page. The association is the same as that on the Manage Attachment Entities page.

Attachments Troubleshooting: Explained

Attachments UIs are very user-friendly and easy to work with. You may encounter issues in certain cases such as you customize the attachments, for example create additional attachment categories, or implement data security on them.

Issue: Can't View, Add, Update, or Delete Attachments

You may encounter the following issues when trying to view attachments or perform actions such as adding attachments.

- You can no longer see specific attachments that were earlier visible.
- You can no longer update or delete attachments.
- You get an error stating that you do not have permission to add attachments.

Resolution

Use the Manage Attachment Entities page to ensure that attachment categories are associated to the relevant attachment entity. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what categories to assign.

If data security is implemented on the categories for the attachment entity, verify that the Enable Security check box is selected in the Manage Attachment Entities page for that entity. Make sure that users have a role with the privileges shown in the following table, to view, add, update, or delete attachments with a specific attachment category.

Action	Privilege
View	Read Application Attachment (FND_ READ_ APPLICATION_ ATTACHMENT_ DATA)
Add or Update	Update Application Attachment (FND_ UPDATE_ APPLICATION_ ATTACHMENT_ DATA)
Delete	Delete Application Attachment (FND_ DELETE_ APPLICATION_ ATTACHMENT_ DATA)

For example, if users have the Read Application Attachment privilege for all categories associated with the expense report attachment entity, except the Receipts attachment category, then they can view all expense report attachments except those created with the Receipts category. Likewise, if users do not have the Update Application Attachment privilege for any attachment categories tied to the expense report attachment entity, then they cannot create any attachments for the expense reports.

For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

Certain attachments UI have predefined restrictions for users on categories. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

Issue: Missing Attachment Category

You can view existing attachments but the attachments no longer have an attachment category associated with them.

Resolution

When the attachment was added, at least one category existed for the corresponding attachment entity. Since then, the entity was edited so that it no longer has any assigned categories, so the user cannot see the category associated with that attachment.

Use the Manage Attachment Entities page to reassign attachment categories to the relevant attachment entity. For example, if users can no longer see the Receipts attachment category for an attachment to an expense report, then search for the expense report attachment entity and assign to it the Receipts category. You may need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or any additional categories to assign.

Certain attachments UI have predefined restrictions for users on categories. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

FAQs for Management Attachment Categories

What's an attachment category?

You must use an attachment category to classify and secure an attachment. While adding attachments, you can view the available attachment categories and add the attachment to one of them. For example, attachments for an expense report can be categorized as receipts, scanned invoice images, and so on.

You can also associate roles with categories to restrict user access and actions for an attachment entity. You can also create and manage custom categories for your own purpose, involving specific attachments with specific security requirements. For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

In the Setup and Maintenance work area, search for the Manage Attachment Categories task and access the Manage Attachment Categories page.

Related Topics

- Modules in Application Taxonomy: Explained

11 Project Foundation Configuration: Overview

Define Project Foundation Configuration: Overview

In the Define Project Foundation Configuration activity, you configure foundation components for creating and maintaining projects in Project Financial Management.

Setup tasks in the Define Project Foundation Configuration activity are grouped into the following task lists and tasks:

Task List	Description
Define Project Foundation Common Reference Objects	Review and manage common objects, for example value sets and messages, that are used by Project Financial Management.
Define Project Calendars and Periods	Manage calendars, accounting period statuses, and project accounting period statuses used for costing, budgeting, forecasting, billing, and project performance reporting.
Define Types and Categorizations	Manage various classifications used to describe and group projects, tasks, and transactions.
Manage Oracle Social Network Objects for Project Foundation	Enable the display of information in Oracle Social Network about changes to Project Financial Management business objects, and select which attributes to include for each object.
Enable Automated Project Spaces	Specify whether to create or maintain project spaces automatically.
Define Project Roles	Define project roles and the business rules that control how the roles are assigned.
Define Project Resources	Define job mapping, attributes, and rate schedules for project resources.
Define Rate Schedules and Costing Rules	Define rate schedules and costing rules used for costing, billing, work planning, and financial planning purposes.
Define Project Resource Breakdown Structures	Define resource breakdown structures used for project planning, billing, and reporting.
Define Burdening	Configure options used to calculate, group, and apply indirect costs to project expenditure items to report and account the total cost of a project.
Manage Project Types	Create classifications for projects and configure basic options that are inherited by each project associated with that project type.
Define Action Controls	Define source products and configure action controls to determine which actions cannot be performed in Project Financial Management on data imported from a particular third-party source.
Distribute and Install Desktop Integrator Client	Distribute and install the software needed to integrate Excel with costing, budgeting, and forecasting.

Task List	Description

12 Project Foundation Configuration: Define Project Calendars and Periods

Maintaining Accounting Periods and Project Accounting Periods: Critical Choices

During business unit implementation you determine whether to maintain common accounting and project accounting periods, or define project accounting periods that have a different frequency than the accounting periods.

Accounting periods are used by Project Financial Management applications to assign accounting periods and dates to transactions. Accounting periods are maintained by ledger and use the same calendar as the general ledger periods. Project accounting periods are used by Project Financial Management applications for project planning, costing, billing, budgeting, forecasting, and performance reporting. Project accounting periods are maintained by business unit and typically do not use the same calendar as the accounting and general ledger periods.

Maintaining Common Accounting and Project Accounting Periods

If you want to report project information with the same frequency as the accounting periods, you can use the accounting period as both the accounting and project accounting period.

When you maintain common accounting and project accounting periods, period maintenance is simplified, calendar periods are not copied to Project Financial Management applications, and period information is maintained in one physical location. Use Oracle Fusion General Ledger to maintain accounting period statuses and run the processes to open and close accounting periods.

Defining Project Accounting Periods that are Different from Accounting Periods

If you want to account for project transactions and report project information more frequently than the accounting periods allow, you can define project accounting periods that are shorter than the accounting periods. For example, you can define weekly project accounting periods and monthly accounting periods, as shown in the following diagram.

Accounting Period	Period Number
Oct-11	10
Sep-11	9
Aug-11	8
Jul-11	7
Jun-11	6
May-11	5
Apr-11	4
Mar-11	3
Feb-11	2
Jan-11	1
Dec-10	12
Nov-10	11
Oct-10	10

Project Accounting Period	Period Number
Oct-W4-11	42
Oct-W3-11	41
Oct-W2-11	40
Oct-W1-11	39
Sep-W4-11	38
Sep-W3-11	37
Sep-W2-11	36
Sep-W1-11	35
Aug-W4-11	34
Aug-W3-11	33
Aug-W2-11	32
Aug-W1-11	31
Jul-W4-11	30

Use Oracle Fusion General Ledger to maintain accounting period statuses and run the processes to open and close accounting periods, and Project Financial Management applications to maintain project accounting period statuses and run the processes to open and close project accounting periods.

Related Topics

- How can I set up project accounting periods that are different from accounting periods?
- How can I set up common accounting and project accounting periods?

FAQs for Define Project Calendars and Periods

What's the difference between a project accounting period, an accounting period, and a general ledger period?

Project accounting periods are used to track budgets and forecasts, summarize project amounts for reporting, and track the project status. Project accounting periods are maintained by the business unit. You can set up project accounting periods

to track project periods on a more frequent basis than accounting periods. For example, you can define weekly project accounting periods and monthly accounting periods. If you use the same calendar as your accounting periods, the project accounting periods and accounting periods will be the same, although the statuses are maintained independently.

Accounting periods, which are used to derive accounting dates, are maintained by the ledger and use the same calendar as the general ledger periods. Period statuses for the accounting period and general ledger period are maintained independently.

You can select an option on the business unit definition to maintain common accounting and project accounting periods. This option allows the accounting period to be used as the project accounting period and you maintain only one period status.

How can I set up project accounting periods that are different from accounting periods?

Complete these tasks to set up project accounting periods that are different from accounting periods.

- Set up the accounting calendar and manage the accounting period statuses in Oracle Fusion General Ledger.
- During project business unit implementation, specify the project accounting calendar for each business unit.
    - Verify that the option to maintain common accounting and project accounting periods is not selected.
- Copy the accounting calendar into the project accounting period table, which copies the period start and end dates.
- Manage the period statuses for project accounting periods.

How can I set up common accounting and project accounting periods?

Complete the following steps:

1. Set up the general ledger accounting calendar and accounting periods.
2. During project business unit implementation, select the accounting calendar as the project accounting calendar, then select the option to maintain common accounting and project accounting periods.

Can I change a project accounting period date range?

No. You can't change a project accounting period date range if the following conditions exist:

- The period exists in the project accounting period table.
- The period exists as an accounting period that is associated with a project accounting period.
- The period exists in project summarization tables.

What happens if I close an accounting or project accounting period permanently?

You can't enter any transactions in the period you have closed and you can adjust transactions in subsequent periods.

13 Project Foundation Configuration: Define Types and Categorizations

Manage Revenue Categories

Revenue Categories: Examples

Your implementation team creates revenue categories to group expenditure types and event types for revenue recognition. A revenue category describes a source of your organization's revenue.

Revenue Categories for Labor and Other Transactions

The following table illustrates possible revenue categories your implementation team can define for labor and other types of revenue.

Revenue Category Name	Description
Fee	Fee Earned
Labor	Labor Revenue
Other	Nonlabor Revenue
Payment	Payment

FAQs for Manage Revenue Categories

What's a revenue category?

Source of revenue for an organization. Revenue categories group expenditure types and event types for revenue and invoices. Also used to define accounting rules.

Manage Expenditure Categories and Types

Expenditure Classifications: Examples

Expenditures are divided into expenditure categories and revenue categories. Within these groups, expenditures are further classified by expenditure type classes, expenditure types, and nonlabor resources.

Expenditure Classifications

This following graphic shows examples of expenditure classifications. Each expenditure type consists of an expenditure category, a unit of measure and one or more expenditure type classes.

Following are the expenditure categories, units of measure, and expenditure type classes for each expenditure type shown in the diagram.

- Administrative
  - Expenditure Category: Labor
  - Unit of Measure: Hours
  - Expenditure Type Class: Straight Time
- Clerical
  - Expenditure Category: Labor
  - Unit of Measure: Hours

    - Expenditure Type Classes: Straight Time and Overtime
- Consulting
    - Expenditure Category: Outside Services
    - Unit of Measure: Currency
    - Expenditure Type Classes: Supplier Invoices, Expense Reports, and Usages
- Photo Processing
    - Expenditure Category: Product Development
    - Unit of Measure: Currency
    - Expenditure Type Classes: Supplier Invoices and Expense Reports

Expenditure Type Classes: Explained

An expenditure type class tells Oracle Fusion Projects how to process an expenditure item.

Oracle Fusion Projects predefines all expenditure type classes, which include the following:

- Straight Time
- Overtime
- Burden Transaction
- Expense Reports
- Inventory
- Miscellaneous Transaction
- Supplier Invoices
- Usages
- Work-in-Process

Expenditure Type Classes for Labor Costs

Oracle Fusion Projects uses the following expenditure type classes to process labor costs.

- Straight Time: Labor costs calculated using a base cost rate multiplied by hours.
- Overtime: Labor costs calculated using a premium cost rate multiplied by hours.

Expenditure Type Classes for Nonlabor Projects

Oracle Fusion Projects uses the following expenditure type classes to process nonlabor projects.

- Burden Transaction: Burden transactions track burden costs that are calculated in an external system or calculated by Oracle Fusion Projects as separate, summarized transactions. These costs are created as a separate expenditure item that has a burdened cost amount, and a quantity and raw cost value of zero.
  You can adjust burden transactions that are not system-generated.
- Expense Reports: Expense reports imported from Oracle Fusion Payables or an external system.
  Expense reports that you import into Oracle Fusion Projects must be fully accounted prior to import.

- Inventory: Inventory transactions imported from Oracle Fusion Inventory or an external system.
- Miscellaneous Transaction: Used to track miscellaneous project costs. Following are examples of miscellaneous transactions.
    - Fixed assets depreciation
    - Allocations
    - Interest charges
- Supplier Invoices: Supplier invoices, discounts, and payments from Oracle Fusion Payables or an external system, and receipt accruals from Oracle Fusion Cost Management.
- Usages: You must specify the nonlabor resource for every usage item that you charge to a project.

  For each expenditure type classified by a Usages expenditure type class, you also define nonlabor resources and organizations that own each nonlabor resource.
- Work-in-Process: Used when you import work-in-process transactions from third-party applications or Oracle Fusion Project Costing using Microsoft Excel or web services, or enter work-in-process transactions directly into Oracle Fusion Projects.

Expenditure Type Class for Allocation Transactions: Points to Consider

When defining an allocation rule, you must specify the expenditure type class for the allocation transaction attributes. Choosing the expenditure type class determines how the allocated amount is created as costs on the expenditure item.

Miscellaneous Transactions

The miscellaneous transaction expenditure type class is used to allocate the source amount as raw cost on the expenditure item.

Burden Transactions

The burden transactions expenditure type class is used to allocate the source amount as the burden cost for the expenditure item, while expenditure item quantity and raw cost remain zero.

Related Topics

- Allocation Methods: Critical Choices
- Allocation Basis Methods: Critical Choices
- Project Cost Allocations: How They're Processed

Expenditure Types: Explained

An expenditure type is a classification of cost that you assign to each expenditure item that you enter in Oracle Fusion Projects. Create expenditure types for processing requirements, such as calculating raw costs, to classify costs, and to plan, budget, forecast, and report on projects.

Following are examples of other ways that you can use expenditure types:

- Assign an expenditure type to each burden cost code when capturing burden costs on separate, summarized expenditure items. The assigned expenditure type becomes the expenditure type for that type of burden cost.
- Specify default expenditure types for each resource class for different project units. The application uses the default expenditure type for planning purposes. For example, when determining the raw and burdened cost rates for a planning resource, if the resource format does not contain an expenditure type or nonlabor resource, then the application uses the default expenditure type for the resource class of the resource to determine the rates.
- Labor cost multipliers are used to calculate costs for overtime expenditure items. Associate a labor cost multiplier to an expenditure type with the Overtime expenditure type class. The costing process multiplies the standard labor cost rate by the multiplier and the hours to calculate the cost for overtime expenditure items.
- Assign an expenditure type with the Usages expenditure type class to each nonlabor resource to define nonlabor resources that are used to record usage transactions.

Expenditure types contain the following attributes.

- Expenditure and revenue categories
- Unit of measure
- Rate required
- Proceeds of sale
- Expenditure type classes
- Assigned sets
- Tax classification codes

If you create and save an expenditure type, you cannot subsequently update the following attributes for the expenditure type.

- Expenditure and revenue categories
- Unit of measure
- Rate required option

Instead, you must enter an end date for the expenditure type and create a new one. The end date for an expenditure type has no effect on existing transactions. Oracle Fusion Projects uses the old expenditure type to report on and process existing transactions.

Expenditure and Revenue Category

Expenditure categories group expenditure types for costing. Revenue categories group expenditure types for revenue and billing.

Unit of Measure

The expenditure type unit of measure is used as the default value on costing or planning transactions.

For inventory transactions, the primary unit of measure is from the inventory item, and not from the expenditure type on the transaction.

You must use Hours as the unit of measure for labor expenditure types.

Rate Required Option

Enable the **Rate Required** option for an expenditure type that requires a cost rate.

> **Note:** For supplier invoice expenditure types, if you specify that a rate is required, Oracle Fusion Projects requires you to enter a quantity in Oracle Fusion Payables for invoice distributions using that expenditure type. When you interface the invoice distribution to Oracle Fusion Projects, the application copies the quantity and amount to the expenditure item and calculates the rate. If you define a supplier invoice expenditure type with the **Rate Required** option disabled, then the quantity of the expenditure item is set to the amount you enter in Oracle Fusion Payables.

Proceeds of Sale Option

Enable the **Proceeds of Sale** option for expenditure types that are used to track the proceeds of sale for a capital project.

Expenditure Type Classes

Expenditure type classes specify how an expenditure item is processed. For example, if you assign the Straight Time expenditure type class to an expenditure type, Oracle Fusion Projects uses labor cost schedules to calculate the cost of an expenditure item with that expenditure type and expenditure type class.

You can assign multiple expenditure type classes to an expenditure type. For example, an expenditure with the expenditure type Materials can have the expenditure type class Supplier Invoice if it originated in Oracle Fusion Payables, and the expenditure type class Inventory if it originated in Oracle Fusion Inventory. This allows you to use a single expenditure type to classify as many costs as you need. You can use the same expenditure type for expenditures with different origins, and therefore different accounting, that should otherwise be grouped together for costing, budgeting, or summarization purposes.

Assigned Sets

You must assign at least one project transaction type set to each expenditure type. You can add and delete set assignments for an expenditure type at any time, except that you cannot delete the last set assignment for an expenditure type.

Tax Classification Codes

You can optionally select a default tax classification code to use for customer invoice lines for an expenditure type and business unit.

FAQs for Manage Expenditure Categories and Types

Can I update or delete an expenditure category?

You can update expenditure category names and descriptions at any time. You cannot delete an expenditure category if it is used in transaction controls, expenditure types, resource transaction attributes, or cost distribution organization overrides. You can, however, stop usage of an expenditure category by setting an end date for it.

Can I assign multiple expenditure type classes to an expenditure type?

Yes. For example, an expenditure with the expenditure type Materials can have the expenditure type class Supplier Invoice if it originated in Oracle Fusion Payables, and the expenditure type class Inventory if it originated in Oracle Fusion Inventory. This allows you to use a single expenditure type to classify as many costs as you need. You can use the same expenditure type for expenditures with different origins, and therefore different accounting, that should otherwise be grouped together for costing, budgeting, or summarization purposes.

Can I designate cost of removal and proceeds of sale amounts when processing retirement costs?

Yes. When capturing retirement costs in a capital project, enter proceeds of sale amounts using expenditure types specifically created for that purpose. Oracle Fusion Project Costing automatically classifies amounts for all other expenditure types associated with the retirement cost task as cost of removal.

Can I update or delete an expenditure type?

You can update expenditure type names, descriptions, and dates at any time. However, you can't update the following attributes for the expenditure type: expenditure category, revenue category, unit of measure, rate required, and expenditure type class.

To update these attributes, you must set an end date for the expenditure type and create another expenditure type with a unique name.

You can't delete an expenditure type and the associated expenditure type class. However, you can stop the usage of an expenditure type by setting an end date for it.

What's an expenditure category?

Describes and groups organization costs. For example, an expenditure category named Labor refers to the cost of labor. An expenditure category named Supplier refers to the cost incurred on supplier invoices. You use expenditure categories for budgeting, transaction controls, when you define organization overrides, and in accounting rules and reporting.

Manage Project Class Categories

Setting Up Class Categories: Points to Consider

You define project classifications to group projects. Project classifications include a class category and a class code. The category is a broad subject within which you can classify projects, such as Industry Sector. The code is a specific value of the category, such as Construction, Banking, or Health Care.

You specify the following options when setting up project classifications.

- Assign to all projects
- Assign to all project types
- Available as accounting source
- One class code per project
- Enter class codes percent
- Class codes
- Project types

Assign to All Projects

Enable this option if all projects must have a code assigned to this class category. Do not enable if this class category is optional.

Assign to All Project Types

Enable this option if you want this class category to be required for projects of all project types.

Available as Accounting Source

This option indicates if the class category is available as an accounting source so that Oracle Fusion Subledger Accounting can use the category to create mapping sets, account rules, journal line rules, and description rules.

Only one class category at a time is available as an accounting source in Oracle Fusion Subledger Accounting. To change the class category that Oracle Fusion Subledger Accounting uses, deactivate the old class category and create a new one with a different date range.

One Class Code Per Project

Specify whether you want to allow entry of only one class code with this class category for a project.

> **Note:** Defining multiple class codes for one category for a project may affect reporting by class category. For example, defining multiple class codes may cause a code to be reported more than once.

Enter Class Codes Percent and Total Percent Must Equal 100

Enable this option if you want to associate percentages with the class codes associated with this category. When you have multiple classification codes associated with a single class category, you can report the relative values of your projects in terms of sales or a similar metric. When you enable this option, the application requires class code percentages for the category regardless of the project type.

Enable the **Total Percent Must Equal 100** option if you want the application to require that the sum of all class code percentages to be 100% for the selected class category. You can clear this option at any time. After the class category is added to a project, you can't change the Enter Class Codes Percent option and you can't check the Total Percent Must Equal 100 check box.

Class Codes

You can define class codes for the category to create more specific groups of projects for reporting. Assign each class code to a reference data set so that only codes that are relevant to the project unit are available for the project.

Project Types

Associate project classifications with project types for the classification to be available for selection on projects with that project type. You can add classifications to a project type definition, and add project types to a class category definition.

Select the **Assign to all projects** option for a project type if you require all projects of the project type to be associated with the class category.

Related Topics

- Why do I specify a percentage for a class category and class code combination?

Using Class Categories: Examples

Class categories and class codes enable you to classify projects. The following example illustrates how you can use project classifications.

Scenario

InFusion Corporation designs and implements heavy engineering projects for government and private customers. Because InFusion Corporation maintains a diverse portfolio of contracts, the ability to track sector and funding is very important to corporate management.

Therefore, the organization classifies projects by market sector and funding source. The following table describes the two class categories used.

Class Category	Assign to All Projects	One Class Code per Project	Enter Percentage for Class Codes	Description
Market Sector	Yes	Yes	No	Market sector in which project work takes place. A single class code must be provided on the project for the class category.
Funding Source	Yes	No	Yes	Source of funding for project. At least one class code must be provided on the project for the class category. Percentages must be provided to indicate contribution for each source.

The following table describes the class codes available for the categories specified above.

Class Category	Class Code	Description
Funding Source	Private	Project funded by private organizations
Funding Source	Federal	Project funded by the federal government
Funding Source	State or Local	Project funded by a state or local government
Funding Source	Foreign	Project funded by a foreign government
Market Sector	Utilities	Project involves utility or power plant construction
Market Sector	Waste	Project involves waste disposal or recycling facility constructions
Market Sector	Mechanical	Project involves mechanical design and engineering work

Class Category	Class Code	Description
Market Sector	Structural	Project involves structural design and engineering work

InFusion management can easily assess projects based on the above class categories and codes.

For example, you specify a class category Funding Source on your project. With this category, you select two class codes: Private and Federal. If you assign 30 percent to Private and 70 percent to Federal, then you indicate the proportion of funding received for your project from the two sources.

On the other hand, because you must select a single market sector, you indicate whether project work involves utilities, waste, mechanical, or structural activities.

Manage Work Types

Work Types for Billing: Explained

A work type represents a classification of work. You use work types to classify both actual and scheduled work. The billable status of a work type assigned to a scheduled assignment determines the default billable status of scheduled work.

In billing, you can use work types to classify work for the following purposes:

- To determine the default billable status of expenditure items.
- To classify cross-charge amounts into cost and revenue for cross-charge transactions.

Billable Project Work

The default billable status of scheduled work is determined by the billable status of the work type assigned to the scheduled assignments. You can also control the billable status of actual work by the work type assigned to actual transactions. If you choose to do this, then you must change the work type on an actual transaction to change the billable status of the transaction. It is recommended that you do this in order to maintain consistency between processing of actual transactions for customer billing and reporting for billable utilization.

Tip: To use work types to determine whether an expenditure item is billable you must set the profile option Work Type Derived for Expenditure Item to **Yes**.

Cross-Charge Work

Cross-charge work is project work performed by resources from one organization on a project belonging to another organization.

Typically the project-owning organization provides some compensation to the resource organization for this cross-charge work. The compensation can be in the form of sharing revenue with the resource organization or taking on the cost from the resource organization. This allows each organization to be measured on its performance independent of one another. You can classify the transfer price amount type of cross-charge work into cost or revenue based on the work type assigned to project work: scheduled or actual.

FAQs for Manage Work Types

What's a work type?

A classification of actual work. For example, a professional services enterprise may define work types such as Analysis, Design, and External Training. Use work types to determine whether expenditure items are billable and to classify cross-charge amounts into cost and revenue.

When you create or import expenditure items, the default work type is inherited from the associated task. Tasks, in turn, inherit work type values from parent tasks and ultimately from the project. Project types determine the default work type value for projects and project templates.

Manage Project Statuses

Project Status Components: How They Work Together

Project statuses are used to track the project as it flows through the project lifecycle. The following project statuses are available for the execution and financial management of the project:

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

The progress status type specifies 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. The following are the predefined progress statuses.

- On track
- At risk
- In trouble

You can define additional statuses to meet your business needs. Use the Manage Project Statuses task to create and manage statuses.

Additional features are available if a project is enabled for financial management. These features include workflow approvals, next allowable statuses, status controls, and progress statuses.

Status Attributes

Each status is associated with a status type and a system status. Optionally you can specify status attributes for initial project status and workflow.

- **Status Type**: Types are Project or Progress.
- **System Status**: Predefined system statuses that the application uses for internal processing. Every status must map to a predefined system status

- **Initial Project Status**: Controls whether you can select the status as an initial status on a project template. Initial project status doesn't apply to progress statuses.
- **Workflow Attributes**: An approval workflow enables you to separate project creation from project approval. Workflow attributes don't apply to progress statuses.

  Project status approval workflow includes these attributes:

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

    The project status after rejecting the workflow can be the same as the current status.

Status Controls

Status controls determine the actions allowed for a project in a given project status.

Status controls control the following actions:

- Adjust transactions
- Capitalize assets
- Capitalized interest
- Create burden transactions
- Create new transactions
- Summarize project data

By default, a project in an **Active** system status allows all actions.

Status controls don't apply to progress statuses.

Next Allowable Statuses

Next allowable statuses specify which statuses you can use as the new status when you manually change a system status. All is the default next allowable status, which you can change.

Defining the next allowable statuses determines the project 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.

The following four options are available when you specify the next allowable statuses:

- **All**: The current status can change to any status. All is the default value.
- **None**: The current status can't change.
- **System Status**: System statuses control the next allowable statuses. Specify which system statuses are next allowable statuses.
- **Status Name**: Project statuses control the next allowable statuses. Specify which project statuses are next allowable statuses.

Next allowable statuses don't apply to progress statuses.

Project Status Change Workflow: Explained

Project Portfolio Management provides a default Project Status Change workflow process. If you enable workflow for a project status, the approval workflow begins when a project changes to that status. The default workflow process routes a request for approval of the project status change to the project manager.

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

Project Status Change Workflow Settings

During implementation, you specify the project statuses that require approval before a project changes to that status.

For each project status with workflow enabled, you can also specify the following parameters:

- The status the application assigns to the project after accepting a project status change.
- The status the application assigns to the project after rejecting a project status change.

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 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.

Workflow attributes don't apply to progress statuses.

The following diagram 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 requester changes the project status to Submitted. The workflow sends a notification to the project manager, who accepts the status change. The workflow changes the project status to Active after you accept a request to change the status to Submitted. After project completion, the requester changes the project status to Pending Close. The workflow sends a notification to the project manager, who accepts the status change. The workflow changes the project status to Close after you accept a request to change the status to Pending Close.

14 Project Foundation Configuration: FAQs for Enable Automated Project Spaces

How are project space roles mapped to project resources?

The application automatically assigns each project resource to a project space role on the associated project space. The project manager is assigned the role of project space moderator. All other project resources are project space participants.

Project space moderators can manually add additional participants or modify participant access, if required.

15 Project Foundation Configuration: Define Project Roles

Project Roles in Budgeting and Forecasting: Explained

Default project roles, including project application administrator, project manager, and project administrator can perform specific budgeting and forecasting tasks.

Default Access for Roles

The following table describes the default access for each role.

Privilege Area	Project Application Administrator	Project Manager	Project Administrator	Notes
Edit budget and forecast planning options	Yes	No	No	Project application administrators set planning options for financial plan types. Project managers and accountants can view planning options at the version level.
Create versions	No	Yes	Yes	None
Generate versions	No	Yes	Yes	Applies to budgets generated when setting a baseline for the project plan. Project administrators can't generate forecasts from progress (they don't have access to publish progress.)
Edit versions in Excel	No	Yes	Yes	None
Submit versions	No	Yes	Yes	None
Approve versions	No	Yes	No	A team member with project manager security role access must be manually designated as the project manager for the project.

Privilege Area	Project Application Administrator	Project Manager	Project Administrator	Notes
				If workflow is enabled, then approval occurs through a notification. Menu actions aren't available on the budgeting and forecasting pages.
Review versions	No	Yes	Yes	None

FAQs for Define Project Roles

What's a project role?

Project roles represent either a requirement or an assignment on a project, such as a project manager or project team member.

You associate a job or abstract role with each project role. When you assign a project role to a project team member, the associated job or abstract role determines the type of access the team member has to project information. For example, project managers can manage project progress or create budgets and forecasts. Project team members may only have access to view progress or financial plans.

When you create a project role, you assign it to one or more reference data sets so that only project roles that are relevant to the project unit are available to assign to project team members.

Persons who are directly assigned job or abstract roles such as **Project Manager** or **Project Application Administrator** may have access to certain project information even if they aren't project team members or don't have a specific project role assignment.

What's the difference between a job title and a project role?

A job title represents the function of a person within an organization and the position within a reporting hierarchy. For example, your organization may have designations or job titles such as software developer, sales representative, or accounts manager.

Project roles represent either a requirement or an assignment on a particular project, for example, project manager. Project roles may differ from project to project.

16 Project Foundation Configuration: Define Project Resources

Manage Resource Classes

Resource Formats and Resource Classes: How They Work Together to Create Planning Resources

The resources you can create for planning and billing resource breakdown structures are determined by a combination of predefined resource classes and the resource format hierarchies you select for use.

Resource Formats and Resource Format Hierarchies

Before creating planning or billing resources, you must select the resource formats and resource format hierarchies you want to use on your resource breakdown structure. For example, if you want to plan for project-related expenses such as air fare, then you must select resource format hierarchies created using the resource type **Expenditure Type**.

Also, as resource format hierarchies support up to three levels, selecting from the available hierarchies enables you to determine the granularity with which resources are created.

For example, for planning resource breakdown structures used for high-level or preliminary planning, you may decide to enable only the **Resource Class** resource format. You can then create and use planning resources representing the four resource classes: Labor, Equipment, Material Items, and Financial Resources.

To plan in greater detail, you may decide to use a two-level resource format hierarchy, such as **Resource Class: Job** or a three-level hierarchy such as **Resource Class: Job: Named Person**. You can then create a resource such as Labor: Electrical Engineer or Labor: Electrical Engineer: Chris Black.

Selecting more granular resource formats automatically selects resource formats higher up within the same hierarchy. For example, if you select the resource format **Expenditure Type: Named Person: Job**, then the resource formats **Expenditure Type: Named Person** and **Expenditure Type** are automatically selected for use.

Resource Classes

Resource classes influence the creation of planning and billing resources in the following ways:

- Resource class as a resource format: As mentioned earlier, **Resource Class** is a resource type that is available for use within resource format hierarchies on planning and billing resource breakdown structures.
- Predefined association with resource formats: For each resource format, you can create planning or billing resources based on certain resource classes. For example, if the resource format contains Job, then the only available resource class is Labor. However, if the resource format is Expenditure Category, then you can select any of the resource classes (Labor, Material, Equipment, and Financial Resources) when you create a resource.

Related Topics

- Resource Formats: Explained

Resource Classes: Explained

Resource classes are predefined classification of resources. For each resource class, you can define specific attributes that associated planning resources inherit.

Following is a description of the available resource classes and their attributes.

Available Resource Classes

The resource classes available in Oracle Fusion Projects are as follows:

Resource Class	Description
Labor	Named persons or any grouping of named persons whose time capacity is consumed to complete project work. Named persons may be grouped by attributes such as job, organization, or role.
Equipment	Nonperson resource such as machinery, equipment, or facilities with time capacity that is consumed to complete project work. Examples include telecommunication charges (charged by call), or shared facilities or laboratory (charged for hours used).
Material items	Resources that are physically tracked as inventory, subassembly, work in progress (WIP), purchasable items, or finished goods.
Financial resources	Resources that have a financial value for the project. These resources use Currency as the unit of measure.

Resource Class Attributes

The attributes you can define for each resource class are as follows:

Attribute	Description
Spread curve	Determines how planned amounts for a planning resource are spread across the duration of the project or financial plan. You can change the spread curve that you select for a resource class at the planning resource level and for any corresponding task assignments, or budget or forecast lines.
Item master and category set	Determine the material item and item category lists used in planned transactions and planning, billing, and reporting resource breakdown structures.
Expenditure types	Determine default raw and burdened rates for a planning resource. For example, if the resource format does not contain an expenditure type or nonlabor resource, then the application uses the default expenditure type for the resource class of the resource to determine the rates. You must individually specify expenditure types for project units.

Resource Class Rate Schedules

Create rate schedules for resource classes that you can use for project and financial planning. When creating resource class rate schedules, you can specify both rates and markup percentages for each combination of resource class and organization.

> **Note:** Markup percentage takes precedence for amount-based transactions where the unit of measure is Currency.

You specify a resource class rate schedule in the planning options for a financial or project plan type, project plan, or financial plan version as the source for rates or markup percentages, unless they are available elsewhere. For example, assume you are using actual rates on your financial plan version. If one of the planning resources is an expenditure category, then resource class rate schedules are used to derive rates for that resource because actual rates are not maintained for expenditure categories.

Manage Job Mappings

Job Mapping: Explained

Job mapping enables you to associate granular human resource jobs to less-detailed project jobs that you can use for project management.

Job titles usually reflect human resource characteristics and can vary across countries or units, even within the same enterprise. For example, you may have a project manager in the United States and a chef de project in France. However, when managing projects, especially global ones, you may want to use the same job definitions for all resources rather than unique jobs that are defined by each resource-owning organization. These common, or global, jobs ease the maintenance of costing rates and processes.

Following is a description of job mapping and a brief example.

Mapping Jobs

You map jobs from two job sets through an intermediate job set. Map jobs in your human resource jobs sets to jobs from an intermediate set of jobs. You then map the jobs in the intermediate job set to jobs in your project job sets.

For each combination of **From Job Set**, **Intermediate Job Set**, and **To Job Set**, you manually associate the intermediate job to the to job only once. For subsequent mappings, the to job is displayed automatically when you select the intermediate job and cannot be modified.

> **Note:** If you remove a from job from the mapping, you must save before it can be used again for further mapping.

For example, and as illustrated in the following diagram, assume you want to map jobs from Human Resources Job Set to Projects Job Set through an intermediate job set called Master Job Set. Within the Human Resources Job Set, you want to map jobs Construction Worker and Forklift Operator to a single job called Laborer in the Projects Job set.

You first select Construction Worker as the from job, Master Laborer as the intermediate job, and Laborer as the to job. The intermediate job Master Laborer and the to job Laborer are now linked. Next, when you select Forklift Operator as the to job and Master Laborer as the intermediate job, Laborer is displayed automatically as the to job.

After you map the jobs, you can use the single job Laborer for project management purposes.

Creating a Job Mapping: Example

You can use job mapping to associate granular human resource jobs to less-detailed project jobs that you can use for project management. The following example illustrates how you map jobs from two job sets using an intermediate job set.

Scenario

Vision Corporation is a global enterprise with business units in the United States and France. The following table lists sample job titles in those two countries.

Job Set	Jobs
United States Job Set	Manager
	Staff Consultant
	Senior Consultant
	Design Engineer
	Electrical Engineer
	Construction Worker
France Job Set	Chef de Projet

Job Set	Jobs
	Ingenieur Formateur
	Architecte
	Ouvrier

For project work, Vision Corporation uses the following generic job roles, created for the Global job set:

- Project Manager
- Consultant
- Architect
- Laborer

To map the global jobs to country-specific jobs, Vision Corporation created an intermediate job set, called the Master job set, with the following jobs:

- Master Project Manager
- Master Consultant
- Master Architect
- Master Laborer

Jobs are mapped as follows for the United States job set:

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Manager	Master Project Manager	Project Manager
Staff Consultant	Master Consultant	Consultant
Senior Consultant	Master Consultant	Consultant
Design Engineer	Master Architect	Architect
Electrical Engineer	Master Architect	Architect
Construction Worker	Master Laborer	Laborer

Jobs are mapped as follows for the France job set:

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Chef de Projet	Master Project Manager	Project Manager
Ingenieur Formateur	Master Consultant	Consultant
Architecte	Master Architect	Architect

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Ouvrier	Master Laborer	Laborer

Vision Corporation associates the Global job set to its planning resource breakdown structures. Therefore, jobs such as Project Manager and Laborer are available for creating planning resources. In addition, the Global job set is used to define rates that can are then used for costing, invoicing, and financial planning.

FAQs for Manage Job Mappings

How can I map a human resource job to a project job?

You map jobs from two job sets through an intermediate job set. Map jobs in your human resource jobs sets to jobs from an intermediate set of jobs. You then map the jobs in the intermediate job set to jobs in your project job sets.

For example, you can map the human resources jobs Construction Worker and Forklift Operator to a single projects job called Laborer through the intermediate job Master Laborer. After you have mapped your jobs, you can use the single job Laborer for your project management purposes.

What's a job set?

An organizational partition of jobs. Use job sets to define how you create jobs and use them in your business. Define a single set of jobs or separate job sets for each country or line of business.

For example, assume that the set of jobs your business uses for project management is less granular than the set of jobs for human resource. You can define generic jobs for your project job set and map it to the human resource job sets. Associating the project job set with planning, reporting, and billing resource breakdown structures ensures appropriate project reporting, costing, invoicing, and revenue generation.

Manage Nonlabor Resources

Nonlabor Cost Rates: How They're Determined

Project Financial Management applications use cost rates to calculate the raw cost for transactions. For example, for cost transactions, the application determines a cost rate for each transaction and calculates the raw cost during transaction costing, unless you import the raw cost for transactions.

How Nonlabor Cost Rates Are Determined

The application uses organization costing rules to determine the nonlabor cost rate schedule. Costing rules can be associated with an organization or with a combination of organization and business unit. If hierarchies are used, costing rules can be associated with organizations at any level of the expenditure organization hierarchy.

The application searches for a costing rule in the following order and stops when it finds a valid costing rule that includes the transaction date.

1. Project expenditure organization and business unit
2. Project expenditure organization

3. Parent organization and business unit
4. Parent organization

The application continues up the hierarchy looking at each parent organization and business unit. If an organization isn't found after traversing the hierarchy, the costing rule associated with the business unit is used.

Related Topics

- Rate Schedule Types: Explained

Turning Equipment into Nonlabor Resources: Example

This example illustrates setting up assets as nonlabor resources.

Scenario

You are asked to set up nonlabor resources and assign them to the appropriate organizations for the InFusion Corporation.

Defining Nonlabor Resources

InFusion Corporation wants to capture costs for computer equipment, vehicles, survey equipment, and other assets.

In this example, assume that expenditure types and organizations are already set up, which are prerequisites of defining nonlabor resources.

The Other Assets expenditure type is assigned to all divisions. This nonlabor resource captures miscellaneous items.

Analysis

To define a nonlabor resource, you specify a name and description of each asset, such as a piece of equipment or pool of assets, and a date range during which the resource can be used.

For each nonlabor resource, you must choose an expenditure type with the **Usage** expenditure type class. Every usage item that you charge to a project must specify the nonlabor resource utilized and the nonlabor resource organization that owns the resource. You can select organizations that are classified as project and task owning organizations or project expenditure organizations.

A nonlabor resource may be a piece of equipment with capacity that is consumed, such as a training room, or equipment with physical output that is consumed, such as a copier. Enable the Equipment resource class to plan and report nonlabor resources as equipment with capacity that is consumed.

Nonlabor Resource Details

The following table shows the nonlabor resources for InFusion Corporation.

Resource Name	Description	Expenditure Type	Equipment Resource Class	From Date	Organizations
Laptop	Laptop on the Headquarters Network	Computer Services	Not enabled	January 1, 2011	Data Systems Finance Information Services Risk Analysis

Resource Name	Description	Expenditure Type	Equipment Resource Class	From Date	Organizations
HQ SPARC T3-1 Server	Headquarters Sparc Enterprise Server	Computer Services	Not enabled	January 1, 2011	Information Services
Oracle Exadata Storage Server	Data Systems Oracle Storage Server	Computer Services	Not enabled	January 1, 2011	Data Systems
Oracle Solaris Studio	Engineering and Services Oracle Development Platform	Computer Services	Not enabled	January 1, 2011	InFusion Engineering InFusion Services
Survey	Standard Surveying Equipment	Field Equipment	Enabled	May 1, 2011	InFusion Engineering
Van	Heavy Duty Van	Vehicle	Not enabled	January 1, 2011	InFusion Construction West Midwest East South International
Minivan	Site Visit Minivan	Vehicle	Not enabled	August 1, 2011	InFusion Construction West Midwest East South International
Pickup Truck	Heavy Duty Pickup Truck	Vehicle	Not enabled	January 1, 2011	West Midwest East
Other Asset	Other Asset	Other Assets	Not enabled	January 1, 2011	Administration InFusion Construction InFusion Engineering InFusion Services

FAQs for Manage Nonlabor Resources

What's a nonlabor resource?

An asset or a pool of assets. For example, a nonlabor resource can be a piece of equipment with capacity that is consumed, such as training room, copier.

When you create a nonlabor resource, ensure that organizations and expenditure types exist. You can associate nonlabor resources with Usages expenditure type class only.

> **Note:** To plan and report on equipment, enable the Equipment resource class and specify Hours as unit of measure for the expenditure type.

What's a nonlabor resource organization?

The organization to which a nonlabor resource is assigned. For example, Survey is a nonlabor resource, represents the survey equipment, is assigned to the Engineering organization or another nonlabor resource, PC, represents a pool of personal computers, and is assigned to multiple organizations such as Information Services, Finance, and Engineering.

You can assign nonlabor resources to any organization in the organization hierarchy, regardless of the Project Expenditure Organization classification and organization date range.

Every usage item that you charge to a project must specify the nonlabor resource utilized and the nonlabor resource organization to which the resource is assigned.

17 Project Foundation Configuration: Define Rate Schedules and Costing Rules

Manage Rate Schedules

Rate Schedule Types: Explained

Schedule types determine usage for rates within rate schedules. You specify a schedule type for rate schedules created for costing, billing, or planning purposes in Project Financial Management applications.

The schedule types are:

- Job
- Person
- Nonlabor
- Resource class

Job

Job rate schedules contain rates used to calculate amounts for the following types of labor transactions:

- Costing
- Billing (invoice and revenue)
- Planning
- Budgeting
- Forecasting
- Transfer price

The rate is based on the standard hourly rate assigned to a job title in Oracle Fusion Human Capital Management.

If you are using planning rates for financial or project planning, you can select a specific job rate schedule when configuring rate settings at the plan type or project level. Job rate schedules are used if rates cannot be derived from the person labor rate schedule.

When creating a job schedule type, you must select a job set from Oracle Fusion Human Capital Management. The job set is the source of jobs in your rate schedule. Assign rates or markup percentages to jobs in the rate schedule.

Person

Person schedules contain raw cost rates and billing rates or markup percentages for labor transactions and transfer price amounts. The rate that calculates the cost or billing amount for a project transaction is based on the standard hourly rate or markup percentage assigned to a person, or the job or organization assigned to the person in the schedule. The job or organization is based on the person's assignment in Oracle Fusion Human Capital Management.

You have the option of assigning rates to the following:

- Person

- Person and job
- Person, job and organization

If you assign a rate to a person and job combination, that rate has precedence over the person rate. If you assign a rate to a person, job and organization combination, that rate has precedence over the person rate or person and job combination.

If you are using planning rates for financial or project planning, you can select a specific person rate schedule when configuring rate settings at the plan type or project level. Person rate schedules are used if rates can't be derived from the labor rate schedule.

Nonlabor

Nonlabor rate schedules contain rates or markup percentages that calculate cost, bill, revenue, plan, budget, forecast, or transfer price amounts for nonlabor resources.

Enter a rate or markup percentage for expenditure types with the Rate Required option enabled. Otherwise, assign it only a markup percentage. Assign rates to nonlabor resources and optionally define rates for nonlabor resource organizations.

If you are using planning rates for financial or project planning, you can select a specific nonlabor rate schedule when configuring rate settings at the plan type or project level.

Resource Class

Resource class schedules contain the planning rates or markup percentages for a resource class or a combination of resource class and organization. You optionally assign a resource class schedule to a project plan or financial plan (budgets and forecasts) at the plan type level or version level. The resource class rate schedule determines rates for the associated resources if the rates cannot be derived elsewhere.

Enter a rate or markup percentage for each resource class in the rate schedule. Optionally, assign the rate or markup percentage to a specific organization for a resource class.

Related Topics

- Selecting Rate Schedules for Project and Financial Planning: Points to Consider
- Invoice and Revenue Rates: How They Are Determined
- Job Mapping: Explained

Labor Cost Rates: How They Are Determined

Oracle Fusion Projects uses cost rates to calculate the raw cost for expenditure items. The application determines a cost rate for each expenditure item and calculates the raw cost during cost distribution processing, unless you import the raw cost for expenditure items.

How Labor Cost Rates Are Determined

When you assign a labor costing rule and a rate schedule to an organization, Oracle Fusion Projects applies the following rules in the order presented to determine the labor costing rule for each transaction.

1. Oracle Fusion Projects determines whether any labor costing overrides exist for the employee who is associated with the expenditure item. The application uses the effective dates for the labor costing overrides to determine whether an override is active on the expenditure item date. A labor costing override can have either an overriding cost rate or an overriding rate schedule. If a labor costing override applies, then Oracle Fusion Projects uses it to determine the cost rate.

Labor expenditure items always have a unit of measure of Hours.

For labor transactions, the application searches for a labor costing override in the following order.

a. Person, job, and organization combination
b. Person and job combination
c. Person

2. If no override exists, Oracle Fusion Projects uses an organization costing rule to determine the cost rate. The following logic determines the cost rate. At each level, the application searches for a rule with a date range that includes the expenditure item date.

   a. Organization costing rule for the expenditure organization

      The application searches for an active costing rule assigned to the organization of the expenditure item on the date of the transaction.
   b. Organization costing rule for the parent expenditure organization

      If an organization costing rule for the expenditure organization is not found, the application searches for a rule assigned to the parent organization of the expenditure organization, and continues up the project expenditure organization hierarchy until a rule is found.

      You specify the project expenditure organization hierarchy for the business unit during implementation. If an organization has multiple parent organizations, and a rule is assigned to more than one parent, the application uses the rule assigned to the lowest level parent organization.
   c. Organization costing rule for the business unit

      If no costing rule is found for the expenditure organization and parent organization, the application uses the costing rule assigned to the business unit for the expenditure.

Oracle Fusion Projects applies the costing rule to determine the cost rate for the expenditure item. You can associate either a rate schedule, or a Labor Costing extension with an organization labor costing rule, to determine the cost rate.

FAQs for Manage Rate Schedules

Why can't I find persons in the list of resources when I enter team members, planning resources, or person rate schedules?

You can't find persons in the list of resources when you enter team members, planning resources, or person rate schedules in the following situations:

- The administrator didn't assign a department while creating users. Persons must have an active assignment and be assigned to a department in Oracle Fusion Human Capital Management before they can be added as team members or entered as resources on the planning resource breakdown structure or person rate schedule.
- The resource isn't active in Oracle Fusion Human Capital Management because the current date is before the effective date of the resource. If you want to include persons who will start in the future, select the **Include people with future-dated effective start dates** option when you search for the person.
- Persons assigned as project managers aren't active as of the project start date.
- The assignment of the person is terminated and an appropriate value isn't set for the number of days to display people with terminated assignments. You can set the profile value appropriately at the site profile level using the

Specify Number of Days to Display People with Terminated Assignments task in the Setup and Maintenance work area.

Manage Labor Costing Multipliers

Creating Labor Costing Multipliers: Examples

Set up the labor costing multipliers using the Manage Labor Costing Multipliers task. The application uses the labor costing multiplier to calculate the overtime labor cost rate for an employee using the formula:

Labor Cost Rate × Labor Costing Multiplier = Overtime Premium Labor Cost Rate

The application then multiplies the overtime premium labor cost rate by the number of overtime hours that an employee works to calculate the overtime premium for the employee. This is represented by the following formula:

Overtime Premium Labor Cost Rate × Overtime Hours = Overtime Premium

Labor Costing Multipliers

You define a labor costing multiplier for each kind of overtime your business uses, such as double time or time and a half. For example, if you pay an employee double time for all overtime hours, you define a labor cost multiplier of 2.0. You multiply the employee's labor cost rate by 2.0 to calculate the employee's overtime premium labor cost rate. If you pay an employee time and a half for all overtime hours, you define a labor cost multiplier of 1.5 to calculate the employee's overtime premium labor cost rate. An employee's total labor cost is the overtime premium plus the straight time cost. This is represented by the following formula:

Overtime Premium + (Straight Time Hours × Labor Cost Rate) = Total Labor Cost

The following table shows examples of labor cost multipliers for double time, time and a half, and uncompensated overtime.

Labor Costing Multiplier Name	Multiplier
Double Time	2.0
Time and a Half	1.5
Uncompensated Overtime	0

Manage Labor Costing Rules

Labor Costing Rules: Explained

A labor costing rule determines how an employee is paid. Use the Manage Labor Costing Rules setup task to define labor costing rules. For example, you can define a labor costing rule for pay types such as exempt, nonexempt, uncompensated, compensated, and hourly.

When an employee charges time to a project, the application processes the labor hours according to the employee's labor costing rule. For example, if an employee's labor costing rule is Hourly, the employee is eligible for overtime pay. If the employee's labor costing rule is Exempt, the employee isn't eligible for overtime pay.

Following are the key components of a labor costing rule:

- Costing method
- Overtime labor costing multipliers

Costing Method

For labor costing rules with the Rates costing method, labor costs are calculated for entered hours using hourly cost rates.

Overtime Labor Costing Multipliers

If your employees enter overtime hours manually, you can assign cost multipliers to overtime expenditure types. When you use the Rates costing method, and a transaction is charged to an expenditure type that has an assigned multiplier, the application applies the multiplier as labor costs are calculated.

To calculate rates for overtime expenditure items, before you define labor costing rules, you must define an expenditure type with the Overtime expenditure type class.

Defining Labor Costing Rules: Example

This example illustrates setting up labor costing rules to calculate overtime labor costs.

Scenario

You're asked to set up labor costing rules to calculate overtime labor costs for nonexempt and hourly employees for the InFusion Corporation.

Overtime Costs

All overtime premium costs for nonexempt employees are charged to an indirect project. Hourly employees are required to enter overtime hours manually. All labor costs, including overtime premiums, are charged to the project and task indicated on the timecard.

Analysis

For nonexempt employees, the expenditure types for overtime transactions are derived from the overtime labor cost multipliers that are assigned to the labor costing rule. For hourly employees, when time is charged to an overtime expenditure type, the application applies the costing multiplier assigned to the labor costing rule when labor costs are calculated.

Labor Costing Rule Details

The following table shows the labor costing rules for InFusion Corporation:

Labor Costing Rule	Costing Method	Project	Task
Nonexempt	Rates	Overtime	Time and a Half
Hourly	Rates		

The following table shows the overtime labor cost multipliers that are associated with the labor costing rules:

Labor Costing Rule	Expenditure Type	Labor Cost Multiplier
Nonexempt	Overtime	Time and a Half
Hourly	Overtime	Time and a Half
Hourly	Premium Overtime	Double Time

Manage Labor Costing Overrides

Setting Up Labor Costing Overrides: Critical Choices

You can override the labor costing definition for individual employees and contingent workers for a business unit. The application uses a labor costing override to determine the labor rate for cost transactions, and to plan, budget, and forecast transactions when you use an actual plan type.

Following are the key implementation concepts for setting up labor costing overrides:

- Override for a Person, Job, And Organization
- People with Future-Dated and Terminated Assignments

Override for a Person, Job, and Organization

You specify the labor costing override for a person, or for a more granular override, specify a combination of person and job, or person, job, and organization.

The job and organization represent the human resources job and organization of the person. The jobs that you can select to associate with a labor costing override are based on the person value. The organizations that you can select are based on the job value. When you select a job, an organization is automatically selected by default. The default organization value is based

on the selected job assignment. You can accept the default organization for the labor costing override, select a different organization that is associated with the job and person, or remove the organization so the labor costing override is for person and job combination.

In the example shown in the following table, a person is assigned the Nurse job in two different organizations. When you select Nurse to create a labor costing override, the application automatically selects the default organization General Hospital. You can accept the General Hospital default organization, or change the selection to the University Hospital organization, to create an override for the person, job, and organization combination. Alternatively, you can remove the organization value to create an override for the person, job, and any organization.

Job	Department	Organization	Person Type	Primary
Nurse	Administration	General Hospital	Employee	Yes
Nurse	Optometry	University Hospital	Contingent Worker	No

People with Future-Dated and Terminated Assignments

You can set up labor costing overrides for people with a start date in the future if you enable the People with Future Effective Start Dates as Project Members Allowed profile option. You can set up labor costing overrides for people with terminated assignments if you enable the Number of Days to Display People with Terminated Assignments profile option.

Define Labor Costing Business Unit Options

Overtime Calculation Components: How They Work Together

If you charge overtime costs to a project, you can record the cost premium that you pay for overtime. Your business can then recover overtime costs with higher bill rates or overhead rates. You can manually enter time card transactions to calculate overtime hours and charge them to a project.

Other components of overtime cost calculations are:

- Rates Costing Method
- Overtime Expenditure Types
- Labor Costing Multipliers
- Labor Costing Rules
- Overtime Projects and Tasks

Rates Costing Method

If you enter overtime hours manually, you can assign labor cost multipliers to overtime expenditure types. The rates costing method applies labor costing multipliers to transactions charged to an expenditure type assigned with labor cost multipliers. To calculate rates for overtime expenditure items, you must define first an expenditure type with the Overtime expenditure type class, then define labor costing rules.

When you charge overtime to the project on which overtime was worked, you can track all overtime costs on one expenditure item. The application uses the following formula to calculate the overtime premium cost:

$$\text{Overtime Premium Cost} = (\text{Overtime Hours} \times \text{Hourly Cost Rate} \times \text{Labor Cost Multiplier})$$

Overtime Expenditure Types

You must set up at least one overtime expenditure type that is classified by the Overtime expenditure type class. Following are examples of overtime premium expenditure types and the corresponding expenditure type class:

Expenditure Type	Expenditure Type Class
Double Time Premium	Overtime
Time and Half Premium	Overtime

Labor Costing Multipliers

Labor costing multipliers are values by which labor cost rates are multiplied to calculate overtime premiums. You define a labor cost multiplier for each type of overtime your business uses, such as double time or time and a half.

For example, if you pay a person double time for all overtime hours, then define a labor cost multiplier of 2.0. The person's labor cost rate is multiplied by 2.0 to calculate the person's overtime premium labor cost rate. If you pay a person time and a half for all overtime hours, then define a labor cost multiplier of 1.5 to calculate the person's overtime premium labor cost rate.

The following formulas calculate the overtime premium cost rate:

$$\text{Labor Cost Rate} \times \text{Labor Cost Multiplier} = \text{Overtime Premium Labor Cost Rate}$$

$$\text{Overtime Premium Labor Cost Rate} \times \text{Overtime Hours} = \text{Overtime Premium Cost}$$

The total labor cost of a person is calculated as shown below:

$$\text{Overtime Premium Cost} + (\text{Straight Time Hours} \times \text{Labor Cost Rate}) = \text{Total Labor Cost}$$

For example, assume that a person worked for the usual 8 hours and then 10 hours of overtime at a rate of time and a half. The labor cost multiplier is 1.5 and the person's labor cost rate is $40.00 per hour. The total labor cost of the person is calculated as shown below:

$40.00 × 1.5 = $60.00 per hour = Overtime Premium Labor Cost Rate
$60.00 × 10 hours = $600.00 = Overtime Premium Cost
$600.00 + (8 × $40.00) = $920.00 = Total Labor Cost

Labor Costing Rules

Labor costing rules associate overtime expenditure types with labor costing multipliers and determine how straight time and overtime costs are calculated. When a person charges time to a project, the application calculates the labor hours according to the person's labor costing rule. You specify the default overtime project and overtime task in the labor costing rule to be used for the overtime expenditure items.

Overtime Projects and Tasks

You can define one project to hold all overtime costs, or you can define a separate project for each group or office in your company. For example, create an overtime project for each office. You then charge each employee's overtime hours to the overtime project for the office.

For each overtime project, you must define a task for each type of overtime your business uses. Examples of task names are Time and Half, Double Time, and Uncompensated Overtime.

You must include the logic to charge the appropriate overtime project or task, when you are:

- Using more than one project to hold overtime costs
- Charging overtime hours to an overtime task

Manage Organization Costing Rules

Organization Costing Rule Components: How They Work Together

Use organization costing rules to assign labor costing rules, labor cost rate schedules, and nonlabor cost rate schedules, to business units or specific expenditure organizations. The schedule type on the organization costing rule determines if the application assigns a labor cost rate schedule or nonlabor cost rate schedule.

The following components work together to determine organization costing rules.

- Business unit and expenditure organization
- Schedule type
- Labor costing rule and cost rate schedule
- Default overtime transaction attributes

Business Unit and Expenditure Organization

If you use organization hierarchies, you can select a business unit for an organization costing rule. You can only select expenditure organizations that belong to the project expenditure organization hierarchy for the selected business unit. If you don't select a business unit for an organization costing rule, you can select any expenditure organization that belongs to any project expenditure organization hierarchy.

You can assign an organization labor costing rule to an organization that isn't classified as a project expenditure organization. In this case, the labor costing rule applies to all organizations that are below the specified organization in the project expenditure organization hierarchy. An exception to this rule is a labor costing rule that you assign directly to an organization at a lower level in the hierarchy.

For example, assume a hierarchy has three organizations: Organization 1, Organization 2, and Organization 3. Organization 1 is the parent of Organization 2. Organization 2 is the parent of Organization 3. Organization 3 is the only organization that is classified as a project expenditure organization. If you assign organization labor costing rules only to Organization 1 and Organization 2, the rule that you assign to Organization 2 takes precedence for Organization 3.

Schedule Type

Use the Labor schedule type to use labor cost rate schedules to calculate costs for labor transactions such as time cards. If you select a schedule type of Labor, you must enter a labor costing rule.

Use the Nonlabor schedule type to use nonlabor cost rate schedules to calculate costs for nonlabor transactions such as miscellaneous or usage transactions. If you select a schedule type of Nonlabor, you must enter a nonlabor cost rate schedule.

If you configured the plan type to use actual rates, the pricing engine also uses these rates for planning, budgeting, and forecasting transactions.

The application uses the organization if it's part of the resource definition; otherwise, it uses the project owning organization. The project owning business unit is always the business unit in the planning flow.

Labor Costing Rule and Cost Rate Schedule

To calculate labor costs, you must assign a labor costing rule to each organization costing rule. You assign a labor costing rule to the organization costing rule. If the labor costing rule has a costing method of Rates, you must also assign a cost rate schedule that defines the hourly cost rates for employees in the selected organization.

The labor costing rules and cost rate schedules that you assign to an organization apply to all employees in the organization.

18 Project Foundation Configuration: Define Project Resource Breakdown Structures

Manage Planning and Billing Resource Breakdown Structures

Planning Resource Breakdown Structures: Explained

A planning resource breakdown structure is a list of resources available for planning, budgeting, and forecasting. Resources are a combination of up to three resource types, such as person and expenditure type. The resource types are organized into a hierarchy called a resource format.

Before you can set up resource breakdown structures, you must set up the following:

- Attributes, such as a spread curve, for each resource class:
  - Labor
  - Equipment
  - Material items
  - Financial resources
- Inventory items, including item categories and item cost, if applicable.
- Resource elements:
  - Event types
  - Expenditure categories,
  - Expenditure types
  - Jobs
  - Organizations
  - People
  - Revenue categories
  - Roles
  - Suppliers

Setting up planning resource breakdown structures is a three-step guided process. The following diagram illustrates the flow of planning resource breakdown structures as they're created.

As shown in the diagram, the steps to set up planning resource breakdown structures include the following:

- Define planning resource breakdown structure details
- Select resource formats
- Add planning resources

The last two steps are shown in following diagram, which includes adding resource breakdown structures to a project or template and selecting the primary resource breakdown structure during project or template definition.

Resource Breakdown Structure Details

Planning resource breakdown structure details include the following attributes:

- Date range during which this planning resource breakdown structure is available to assign to projects
- Project unit
- Indicator that specifies whether resource changes are allowed at the project level

If you don't allow changes at the project level, then all projects share the same set of resources. You maintain resources centrally, and you can't selectively add new resources to individual projects. New resources must be added to the resource breakdown structure. When you add resources to the resource breakdown structure, they're immediately available to all projects.

If you allow resource changes at the project level, then the application copies resources to a project-specific version of the resource breakdown structure. You can then add resources to each project independently. However, when you add new resources to the central resource breakdown structure after the project-specific version is created, the new resources aren't automatically available to existing projects. You must add the resources separately to each project. The resource formats are shared across projects and can't be modified for an individual project.

Resource Formats

You select resource formats to add to the planning resource breakdown structure.

Planning resource breakdown structures can have resource formats with up to three hierarchical levels of resource types, as shown in the following example:

- Organization
  - Expenditure category
    - Named person

If you select a child resource format, the application automatically selects the parent. For example, if you select the resource format of organization-expenditure category-named person, the application automatically selects the organization-expenditure category format and expenditure category format.

The resource breakdown structure consists of one or more hierarchies of resource elements. An element is a resource type, such as an organization or job, or a combination of resource type and specified resource, such as the job of consultant or a person named Amy Marlin.

The following diagram shows examples of hierarchical levels of resource elements:

Planning Resources

You can add planning resources to any level of the resource format. You're not required to add resources to every level.

For example, assume that your resource breakdown structure has a resource format with three hierarchical levels. The top level is organization, the second level is expenditure category, and the third level is named person. You can add an organization resource to the first level, an organization and expenditure category resource to the second level, and an organization, expenditure category, and named person resource to the third level. Similarly, if you add a named person at the third level, the organization and expenditure category entered at the third level are automatically created as resources at the first and second level.

After you add planning resources to the resource breakdown structure, you can preview actual transaction associations to find out where actual transaction amounts would be mapped in the project plan, budget, or forecast.

You update the resource mappings for plans, budgets, and forecasts that use the planning resource breakdown structure. When you update the mappings, the process synchronizes the project performance reporting data with the planning resource breakdown structure.

Note: This update process is only required if the planning resource breakdown structure is changed after the project has been initiated and budget, forecast, or actual data has already been entered.

Primary Resource Breakdown Structure

You designate one planning resource breakdown structure as the primary structure on a project. The application uses the primary planning resource breakdown structure for project planning.

Related Topics

- Resource Classes: Explained
- Resource Formats and Resource Classes: How They Work Together to Create Planning Resources

Billing Resource Breakdown Structures: Explained

Use a billing resource breakdown structure to manage billing controls.

You need only a single level billing resource breakdown structures to create billing controls.

Predefined Billing Resource Breakdown Structures

Oracle Fusion Projects provides the following two predefined billing resource breakdown structures:

- Control Billing: Provides a list of resources you can reference when creating billing controls on regular contracts.
- Control Intercompany Billing: Provides a list of resources you can reference when creating billing controls on intercompany and interproject contracts.

You can't create or delete these billing resource breakdown structures. You can edit the resource formats and specify the associated billing resources to meet the needs of your enterprise.

Resource Formats and Resource Classes: How They Work Together to Create Planning Resources

The resources you can create for planning and billing resource breakdown structures are determined by a combination of predefined resource classes and the resource format hierarchies you select for use.

Resource Formats and Resource Format Hierarchies

Before creating planning or billing resources, you must select the resource formats and resource format hierarchies you want to use on your resource breakdown structure. For example, if you want to plan for project-related expenses such as air fare, then you must select resource format hierarchies created using the resource type **Expenditure Type**.

Also, as resource format hierarchies support up to three levels, selecting from the available hierarchies enables you to determine the granularity with which resources are created.

For example, for planning resource breakdown structures used for high-level or preliminary planning, you may decide to enable only the **Resource Class** resource format. You can then create and use planning resources representing the four resource classes: Labor, Equipment, Material Items, and Financial Resources.

To plan in greater detail, you may decide to use a two-level resource format hierarchy, such as **Resource Class: Job** or a three-level hierarchy such as **Resource Class: Job: Named Person**. You can then create a resource such as Labor: Electrical Engineer or Labor: Electrical Engineer: Chris Black.

Selecting more granular resource formats automatically selects resource formats higher up within the same hierarchy. For example, if you select the resource format **Expenditure Type: Named Person: Job**, then the resource formats **Expenditure Type: Named Person** and **Expenditure Type** are automatically selected for use.

Resource Classes

Resource classes influence the creation of planning and billing resources in the following ways:

- Resource class as a resource format: As mentioned earlier, **Resource Class** is a resource type that is available for use within resource format hierarchies on planning and billing resource breakdown structures.
- Predefined association with resource formats: For each resource format, you can create planning or billing resources based on certain resource classes. For example, if the resource format contains Job, then the only available resource class is Labor. However, if the resource format is Expenditure Category, then you can select any of the resource classes (Labor, Material, Equipment, and Financial Resources) when you create a resource.

Related Topics

- Resource Classes: Explained

Resource Formats: Explained

Resource formats are predefined resource types or hierarchies of resource types. You create resources for planning or billing resource breakdown structures based on resource formats.

Following is a description of resource types and resource format hierarchies.

Resource Types

Resource formats are created based on the following predefined resource types.

Name	Description
Named Person	Employee or a contingent worker who performs services for the deploying enterprise.
Event Type	Implementation-defined classification of events that determines the revenue and invoice effect of an event.
Expenditure Category	Implementation-defined grouping of expenditure types by type of cost.
Expenditure Type	Classification of cost assigned to each expenditure item. Expenditure types are grouped into cost groups (expenditure categories) and revenue groups (revenue categories).
Item Category	Categorization of inventory items that is used to track the aggregate consumption of material.
Inventory Item	An item that can be purchased or produced, and for which you can budget and track the costs associated with the consumption of the item.

Name	Description
Job	A set of duties to which an employee can be assigned.
Organization	Divisions, groups, cost centers, or other organizational units within a company.
System Person Type	Distinguishes employees and contingent workers. For example, assume that a project requires 100 hours of labor effort and you have resources only for 80 hours. You can plan 80 hours of employee time and 20 hours of contingent worker time on the project.
Project Nonlabor Resource	Implementation-defined asset or pool of assets. An asset may represent actual pieces of equipment whose time is consumed, or an asset whose output is consumed.
Resource Class	Higher-level grouping of planning resources, into labor, equipment, material items, and financial resources, that drives how resources are used.
Revenue Category	Implementation-defined grouping of expenditure types by type of revenue.
Supplier	A business or individual that provides goods or services, or both in return for payment.

Resource Format Hierarchies

Resource formats consist of one resource type or a hierarchy of up to three resource types. Before you add planning resources to a planning or billing resource breakdown structure, you must select the resource formats you want to use. For example, you can add the resource formats **Job**, **Job: Organization**, and **Job: Organization: Named Person** to your resource breakdown structure.

The resource formats and resource format hierarchy determine how planning amounts roll up and are displayed when you view financial and project plans by resource structure. Thus, each resource format hierarchy represents a separate structure. For example, the resource format hierarchies **Job: Expenditure Type: Organization** and **Organization: Expenditure Type: Job** are distinct.

Related Topics

- Resource Formats and Resource Classes: How They Work Together to Create Planning Resources

Resource Mapping: How It Is Calculated

The Update Mapping process matches actual costs and revenue to the latest, saved planning resources for project planning and forecasting. Summarized actual costs and revenue are recalculated for project performance reporting.

Resource Mapping Considerations

Consider these points when using the Update Mapping process:

- You can update resource mappings after you change resource formats or add resources, and save the resource breakdown structure.
- Baseline project plan values are not affected by the Update Mapping process.
- The Update Mapping process applies only if you do not allow resource changes at the project level.

Tip: If you allow resource changes at the project level, use the Update Actual Amounts action on the project plan to update the actual amounts for all tasks on the project plan. Use the process monitor to start the process to summarize project performance data for reporting.

- After running the Update Mapping process, regenerate forecast versions to reflect the new actual costs.

How Resource Mapping Is Calculated

You can track the cost impact of every resource that has been assigned to a project task and use the resource breakdown structure to view the breakdown of these costs. Oracle Fusion Projects associates the costs of the resources used for tasks with branches and levels in the resource breakdown structure. The process for determining the correct association is managed by rules of precedence.

Oracle Fusion Projects uses the following rules to associate cost amounts with resources:

- Select the lowest level in the resource breakdown structure to which a transaction can map.
  - If there is only one level to which the transaction maps, the cost amounts are mapped to that level.
  - If the transaction maps to more than one level, Oracle Fusion Projects sums the precedence numbers for all resource types in the branch, and gives precedence to the resource element in the branch with the lowest sum.
  - If more than one branch has the lowest precedence number at the lower level, the application uses the precedence number of the next level up.
- If the sum of precedence numbers is the same for more than one branch, precedence is given to the branch with the lowest number at the lowest level.
  - If one branch contains a user-defined resource type, precedence is given to the branch that does not contain a user-defined resource type.

Note: Oracle Fusion Projects gives more precedence to a lower precedence number. For example, a resource element with a precedence number of 1 is given precedence over a resource element with a precedence number of 10.

Rules of precedence are listed in the following table:

Resource Type	Precedence in Labor Resource Class	Precedence in Equipment Resource Class	Precedence in Material Items Resource Class	Precedence in Financial Resources Resource Class
Named Person	1	1	1	1
Project Nonlabor Resource	3	3	3	3
Inventory Item	5	5	5	5
Job	6	6	6	6
Item Category	8	8	8	8

Resource Type	Precedence in Labor Resource Class	Precedence in Equipment Resource Class	Precedence in Material Items Resource Class	Precedence in Financial Resources Resource Class
Expenditure Type	9	9	9	9
Event Type	10	10	10	10
Expenditure Category	11	11	11	11
Revenue Category	12	12	12	12
Organization	13	13	15	15
System Person Type	14	14	14	14
Supplier	15	15	13	13
Resource Class	16	16	16	16

Example of Resource Mapping Using Rules of Precedence

This example illustrates that precedence is given to the branch with the lowest number at the lowest level if the sum of precedence numbers is the same for more than one branch.

In this example, a time card transaction for a principle consultant who incurs travel expenses maps to two branches.

- The first branch consists of two levels (1-Person Type: Employee and 1.1-Job: Principle Consultant). The highest level has a precedence number of 14, and the lowest level has a precedence number of 6, for a sum of 20 for the branch

- The second branch also consists of two levels (2-Expenditure Category: Expenses and 2.1-Expenditure Type: Travel). The highest level has a precedence number of 11, and the lowest level has a precedence number of 9, for a sum of 20 for the branch.

The transaction cost amount is mapped to the Job: Principle Consultant resource element because it has the lowest number (6) at the lowest level.

Manage Reporting Resource Breakdown Structures

Reporting Resource Breakdown Structure Versions: Explained

Use reporting resource breakdown structures to view the rolled-up data in Oracle Fusion Project Performance Reporting. The structure provides a method for viewing planned and actual cost and revenue for a project by resource, resource type, and other resource groupings.

Versions

Reporting resource breakdown structure versions provide a history of resource breakdown structures used for resource reporting.

When a resource breakdown structure is created, a working version is automatically created. You can have only one working version at a time. You can make changes to the working version until you are ready to freeze it.

Only a frozen version can be associated with a project. When you freeze one version, a new working version is created on which you can make further changes.

When you freeze a resource breakdown structure version, that version becomes the current reporting version the next time project performance data is summarized. Although you can have multiple frozen versions, only one is used for current reporting at any given time.

Resource Types and Resources

All planning resource breakdown structures can be used for reporting.

In addition, you can build reporting resource breakdown structures based on the resource types and resources already defined in the system. Select the resource type and specify the associated resource for each level of the hierarchy. You can create up to ten hierarchical levels in a reporting resource breakdown structure. This is different than planning resource breakdown structures, which may contain up to three hierarchical levels.

The User Defined resource type enables you to define your own groups of resources. Select the User Defined resource type, enter a free-form definition of the group, and then create hierarchical levels that link the actual resource types and resources.

Cost Allocations

Enable the **Use For Allocations** option if you want to allocate costs with this reporting resource breakdown structure.

If you enable this option, you can select this reporting resource breakdown structure when defining source and target details for an allocation rule. In this situation, the reporting resource breakdown structure must be assigned to all source or target projects.

FAQs for Define Project Resource Breakdown Structures

Can I add new resource formats?

No. Oracle Fusion Project Portfolio Management provides a set of predefined resource formats. You select resource formats as the basis for adding resources to planning and billing resource breakdown structures.

Can I add new billing resource breakdown structures?

No. You can't create billing resource breakdown structures. You can only add billing resources to the two predefined billing resource breakdown structures, Control Billing and Control Intercompany Billing.

What's a default planning resource breakdown structure?

A planning resource breakdown structure consisting of one resource format (resource class) with four associated planning resources: Labor, Equipment, Material Items, and Financial Resources.

A default planning resource breakdown structure is created automatically for each project unit. When you create a project template, the default planning resource breakdown structure is selected as primary, but you can designate any other one. Once you designate, you cannot remove the planning resource breakdown structure from the project template or project.

What's a primary resource breakdown structure?

A planning resource breakdown structure that is selected as the primary at the project template or project level. The primary planning resource breakdown structure is used for project planning.

When you create a project template, the default planning resource breakdown structure for the project unit is automatically added and set as primary. You can add additional planning resource breakdown structures to the template and set any one of them as primary. Projects inherit planning resource breakdown structures from the associated template. As with templates, you can add or remove planning resource breakdown structures and change the primary designation as required.

What's the difference between a planning resource breakdown structure, billing resource breakdown structure, and a reporting resource breakdown structure?

Planning resource breakdown structures provide a list of resource formats and associated planning resources that you can use for project and financial planning, and optionally, project reporting.

Billing resource breakdown structures are similar in organization to planning resource breakdown structures. However, only two predefined billing resource breakdown structures exist and they provide a restricted set of implementation-defined resource formats and billing resources that are used for invoicing and recognizing revenue for contracts.

Reporting resource breakdown structures provide a resource hierarchy consisting of resources, resource types, and other resource groupings, which is used for reporting on planning and actual amounts on a project. Also, unlike planning and billing resource breakdown structures, you can use reporting resource breakdown structures in allocation rules to determine the allocation source and basis amounts.

What happens if I change a name used in a resource combination on a resource breakdown structure?

You must run the **Refresh Resource Breakdown Structure Element Names** process to refresh the value that appears in the combination.

For example, you have a resource that includes the Telephone Charges expenditure type in the resource combination and you change the name from Telephone Charges to Communication Charges in the Manage Expenditure Types page. The change will not appear in the resource combination until you run the process.

Why can't I change the name of a planning resource?

You cannot change the name of a planning resource after the planning resource breakdown structure is used to create a control budget.

What's the difference between a planning resource breakdown structure, billing resource breakdown structure, and a reporting resource breakdown structure?

Planning resource breakdown structures provide a list of resource formats and associated planning resources that you can use for project and financial planning, and optionally, project reporting.

Billing resource breakdown structures are similar in organization to planning resource breakdown structures. However, only two predefined billing resource breakdown structures exist and they provide a restricted set of implementation-defined resource formats and billing resources that are used for invoicing and recognizing revenue for contracts.

Reporting resource breakdown structures provide a resource hierarchy consisting of resources, resource types, and other resource groupings, which is used for reporting on planning and actual amounts on a project. Also, unlike planning and billing resource breakdown structures, you can use reporting resource breakdown structures in allocation rules to determine the allocation source and basis amounts.

Why can't I find persons in the list of resources when I enter team members, planning resources, or person rate schedules?

You can't find persons in the list of resources when you enter team members, planning resources, or person rate schedules in the following situations:

- The administrator didn't assign a department while creating users. Persons must have an active assignment and be assigned to a department in Oracle Fusion Human Capital Management before they can be added as team members or entered as resources on the planning resource breakdown structure or person rate schedule.
- The resource isn't active in Oracle Fusion Human Capital Management because the current date is before the effective date of the resource. If you want to include persons who will start in the future, select the **Include people with future-dated effective start dates** option when you search for the person.

- Persons assigned as project managers aren't active as of the project start date.
- The assignment of the person is terminated and an appropriate value isn't set for the number of days to display people with terminated assignments. You can set the profile value appropriately at the site profile level using the **Specify Number of Days to Display People with Terminated Assignments** task in the Setup and Maintenance work area.

19 Project Foundation Configuration: Define Burdening

Manage Burden Cost Base Types, Bases, and Codes

Burden Costs: How They're Calculated

Burdening provides the aggregate of raw and burden costs to represent the total cost of doing business accurately. You can calculate burdened costs as a markup of costs by using a precedence of multipliers. Oracle Fusion Project Costing performs a summation of burden costs with raw costs to provide a true representation of costs. Using burdening, you can perform internal costing, revenue accrual, billing, asset capitalization, and budgetary control including the type of burden costs that your company applies to raw costs.

Settings That Affect Burden Cost Calculation Processing

You define the projects that need to be burdened by enabling project types for burdening. When you specify that a project type is burdened, you must then specify the burden schedule to be used. The burden schedule stores the burden multipliers and indicates the transactions to be burdened, based on cost bases defined in the burden structure. You specify the expenditure types that are included in each cost base. With burdening, you can use an unlimited number of burden cost codes, easily revise burden schedules, and retroactively adjust multipliers. You can define different burden schedules for costing, revenue, and billing purposes.

If you enable the option to create separate expenditure items for burden costs at the project type level and the transaction is eligible for budgetary control, then you must associate an expenditure type to the burden cost code in the cost bases of the burden structure.

How Burden Costs Are Calculated

The calculation of burden cost includes the following processing decision logic and calculations.

1. The application selects the expenditure items with raw cost amounts for processing.
2. The process determines if the related project type of the expenditure item is enabled for burdening.
3. If the project type is enabled for burdening, then the process determines the burden schedule to be used.
4. If the project type is not enabled for burdening, then the expenditure item is not burdened. The process assumes the burden multiplier is zero; therefore, burden cost is zero and thus burdened cost equals raw cost.
5. To determine which burden multiplier to use, the process determines if there is a burden schedule override for the expenditure.

6. If a burden schedule override exists, then the process uses the task burden schedule override on the associated task. For sponsored projects, the process ignores the task burden schedule overrides.
7. If no task burden schedule override exists on the associated task, then the process uses the project burden schedule override on the associated project. For sponsored projects, the process ignores the project burden schedule overrides.
8. If there are no burden schedule overrides, the process uses the burden schedule assigned at the task level for burden cost calculations.

   For sponsored projects, the process determines the burden schedule to use for burden cost calculations in the following order:

   a. Burden schedule assigned at the summary task level of the award project
   b. Burden schedule assigned at the award project level
   c. Burden schedule assigned at the award level
9. If the burden schedule type is a firm schedule, then the process checks if a fixed date is specified for burdening. If yes, it uses the fixed date to determine the schedule version. If a fixed date isn't specified, then the process uses the expenditure item to determine the burden schedule version.
10. After a schedule version is determined, the process verifies that the expenditure type of the expenditure item is found in any of the cost bases of the selected burden schedule version.
11. If an expenditure type is excluded from all cost bases in the burden structure, then the expenditure items that use that expenditure type aren't burdened (burden cost equals zero, thus burdened cost equals raw cost).
12. The process then checks if burden multipliers exist for the organization to which the cost transaction belongs. If burden multipliers aren't defined for the organization, then the process checks if multipliers are defined for any of the parent organizations in the hierarchy. If burden multipliers don't exist for the organization or any of the parent organizations, then the expenditure isn't burdened.
13. The application calculates burden cost and burdened cost amounts according to the following calculation formulas:
    - For additive burden structures, burden cost equals raw cost multiplied by a burden multiplier.
    - For precedence burden structures, burden cost equals the sum of raw cost and preceding burden costs multiplied by a burden multiplier.
    - Burdened cost equals the sum of raw cost and burden costs.

Burdened Cost Calculation

The burden structure assigned to the burden schedule version determines whether calculations are additive or based on the precedence assigned to each cost code. A burden structure can be additive or precedence based.

If you have multiple burden cost codes, an additive burden structure applies each burden cost code to the raw costs in the appropriate cost base. The examples in the following tables illustrate how burdened cost is calculated as a combination of raw and burden costs and how different burden structures using the same cost codes can result in different total burdened costs.

The following table shows the cost codes and multipliers for calculating burdened cost using the additive burden structure.

Cost Code	Precedence	Multiplier
Overhead	1	0.10
Material Handling	1	0.10
General Administrative Costs	1	0.10

Cost Type	Calculation	Amount
Raw Cost	Not Applicable	1000.00
Overhead	1000.00 x 0.10	100.00
Material Handling	1000.00 x 0.10	100.00
General Administrative Costs	1000.00 x 0.10	100.00
Burdened Cost	1000.00 + 100.00 + 1000.00 + 100.00	1300.00

A precedence burden structure is cumulative and applies each cost code to the running total of the raw costs, burdened with all previous cost codes. The calculation applies the multiplier for the cost code with the lowest precedence number to the raw cost amount.

The calculation applies the cost code with the next lowest precedence to the subtotal of the raw cost plus the burden cost for the first multiplier. The calculation logic continues in the same way through the remaining cost codes. If two cost codes have the same precedence number, then both are applied to the same subtotal amount.

The following table shows the cost codes and multipliers for calculating burdened cost using the precedence burden structure for an expenditure item which is not rate based.

Cost Code	Precedence	Multiplier
Overhead	10	0.10
Material Handling	20	0.10
General Administrative Costs	30	0.10

Cost Type	Calculation	Amount
Raw Cost	Not Applicable	1000.00
Overhead	1000.00 x 0.10	100.00
Material Handling	(1000.00 + 100.00) x 0.10	110.00
General Administrative Costs	(1000.00 + 100.00 + 110.00) x 0.10	121.00
Burdened Cost	1000.00 + 100.00 + 110.00 + 121.00	1331.00

The order of the burden cost codes has no effect on the total burdened cost with either additive or precedence burden structures.

Creating Burden Cost Bases: Example

You use burden cost bases in burden structures to group the burden cost codes with expenditure types. You create burden cost bases to support unique groupings of burden cost codes and expenditure types.

The following scenario illustrates burden cost bases that are used to group raw costs for the purpose of calculating burdened costs.

Burden Cost Bases

Burden cost bases with the type Burden Cost, shown in the following table, group raw costs to calculate burdened costs. Reports sort cost bases first by the Report Order value and then by the Cost Base name.

Cost Base	Report Order	Cost Base Type
Labor	10	Burden Cost
Material	20	Burden Cost
Expense	30	Burden Cost

Note: The Burden Cost and Other cost base types are predefined.

Creating Burden Cost Codes: Example

The following scenario illustrates burden cost codes that represent distinct types of burden to apply to raw costs.

Burden Cost Codes

Burden cost codes are created for each type of burden that will be applied to raw costs, and are defined on the Manage Burden Cost Codes page. In this example, assume that labor raw costs are burdened with fringe benefits, overhead, and administrative costs. Material raw costs are burdened with material handling fees and administrative costs. Expenses are burdened only with administrative costs.

You can optionally assign an expenditure type to any burden cost code to capture burden costs on separate, summarized expenditure items. Only expenditure types with a Burden Transactions expenditure type class are available for assignment to a burden cost code. The assigned expenditure type becomes the expenditure type for that type of burden cost.

Ensure that the expenditure types that you assign to burden cost codes are:

- Classified as a Burden Transactions expenditure type
- Assigned to the reference data sets for each project unit that will own projects receiving summarized burden transactions

The following table shows burden cost codes that represent distinct types of burden to apply to raw costs.

Burden Cost Code	Description	Expenditure Type
Administrative	Corporate expenses such as corporate staff and marketing	General and Administrative
Fringe - Faculty	Employer paid payroll costs, insurance, and pension for faculty	Fringe Benefits
Fringe - Staff	Employer paid payroll costs and insurance for staff	Fringe Benefits
Material Handling	Material handling fees	Material
Overhead	Support staff, equipment rental, supplies, building rent, and facilities	Overhead

FAQs for Manage Burden Cost Base Types, Bases, and Codes

What's a cost base type?

Identifies if the burden cost base is used for burden cost calculations or grouping expenditure items. The application provides two predefined cost base types:

- Burden Cost: Used for burden calculations.

When do I assign an expenditure type to a burden cost code?

Burden cost codes are assigned to cost bases. When you assign an expenditure type to a burden cost code, burden cost is processed as a separate, summarized burden transaction.

The expenditure type assigned to a burden cost code must be classified as a burden transaction and belong to the reference data set for the project unit.

Note: To process burden cost on the same line expenditure item, you don't need to assign an expenditure type to a burden cost code.

How can I track the burden cost as direct cost in the Federal Financial Report?

Specify the burden cost code to report the cost as direct cost in the **Manage Burden Cost Codes** page. This burden cost is reported as direct cost in the Federal Financial Report in Oracle Fusion Grants Management. However, this is stored as burden cost in all other pages of the application.

Manage Burden Structures

Defining Burden Structures: Example

The following scenario illustrates the relationship between expenditure types and burden cost codes in a burden structure. This relationship determines what burden costs Oracle Fusion Project Costing applies to specific raw costs.

Note: Before you can define burden structures, you must define expenditure types, burden cost bases, and burden cost codes. Use the Define Burdening task list to manage burden cost bases, burden cost codes, and burden structures.

Burden Structure

The following diagram shows the expenditure types and burden cost codes that are assigned to the Labor, Material, and Expense burden cost bases.

The following table shows the multipliers that are used to calculate burden costs for raw costs in the Labor, Material, and Expense cost bases. This is an additive burden structure that applies each burden cost code to the raw costs in the appropriate cost base. Multipliers are defined on the burden schedule.

Burden Cost Base	Raw Cost Amount (USD)	Administrative Cost Code Multiplier	Labor Fringe Benefit Cost Code Multiplier	Labor Overhead Cost Code Multiplier	Material Handling Cost Code Multiplier
Labor	1,000	.20	.20	.40	

Burden Cost Base	Raw Cost Amount (USD)	Administrative Cost Code Multiplier	Labor Fringe Benefit Cost Code Multiplier	Labor Overhead Cost Code Multiplier	Material Handling Cost Code Multiplier
Material	500	.20			.25
Expense	400	.20			

The following diagram shows the resulting burdened costs for labor, material, and expenses.

Additive and Precedence Burden Structures: Examples

A burden structure can be additive or precedence based. If you have multiple burden cost codes, an additive burden structure applies each burden cost code to the raw cost in the appropriate cost base. A precedence burden structure is

cumulative and applies each cost code to the running total of the raw cost, burdened with all previous cost codes. You assign the multiplier on the burden schedule that Oracle Fusion Project Costing uses to perform the cost buildup for each detailed transaction.

Additive Burden Structure

Create an additive burden structure to apply each burden cost code assigned to a cost base using the same precedence when calculating burden costs. Each burden cost code in an additive burden structure is automatically assigned a default precedence value of 1, as shown in the following table.

Cost Code	Precedence	Multiplier	Formula	Amount (USD)
Raw Cost				100.00
Overhead	1	0.50	0.50 x 100.00	50.00
Fringe Benefits	1	0.30	0.30 x 100.00	30.00
General and Administrative	1	0.20	0.20 x 100.00	20.00
Burdened Cost				200.00

Precedence Burden Structure

Create a precedence burden structure to specify the order in which each burden cost code assigned to a cost base is applied to raw costs, as shown in the following table.

Cost Code	Precedence	Multiplier	Formula	Amount (USD)
Raw Cost				100.00
Overhead	10	0.50	0.50 x 100.00	50.00
Fringe Benefits	20	0.30	0.30 x 150.00	45.00
General and Administrative	30	0.20	0.20 x 195.00	39.00
Burdened Cost				234.00

Burden Structure Components: How They Work Together

You define the project cost buildup using a burden structure. A burden structure determines how you group expenditure types into burden cost bases and establishes the method of applying burden costs to raw costs. Before creating burden

structures you must define expenditure types, cost bases, and burden cost codes, which are the main components of a burden structure.

The diagram illustrates a burden structure with the following cost bases.

- Labor
  - Includes the expenditure types Professional, Clerical, and Sales.
  - Is assigned the burden cost codes Administrative, Fringe Benefits, Overhead.
- Material
  - Includes the expenditure types Supplies and Construction Material.
  - Is assigned the burden cost codes Administrative and Material Handling.

- Expense
  - Includes the expenditure types Travel and Meals.
  - Is assigned the burden cost code Administrative.

Cost Bases

Cost bases are the groups of raw costs used for applying burden costs. You assign cost bases to burden structures, and then specify the types of raw costs, represented by expenditure types, that are included in the cost base, and the types of burden costs that are applied to the cost base.

Burden Cost Codes

Burden cost codes represent the distinct type of burden to apply to raw costs. For example, if labor costs receive both fringe benefits and overhead burden, then define a cost code for each type of burden. Assign an expenditure type to each burden cost code that Oracle Fusion Project Costing processes as separate, summarized expenditure items. The assigned expenditure type becomes the expenditure type for that type of burden cost.

Cost Base Types

Cost base types refer to the use of cost bases. Oracle Fusion Project Costing provides the following cost base types.

- Burden Cost: Assign to cost bases that are used to calculate burden costs.
- Other: Assign to cost bases that are used for other purposes than to calculate burden costs.

You can define additional cost base types to use for non-burden transactions.

Expenditure Types

Expenditure types classify raw costs and burden cost codes classify burden costs. The relationship between expenditure types and burden cost codes within each cost base determines what burden costs are applied to specific raw costs, and the order in which processing applies the burden costs.

In a burden structure, each expenditure type can belong to only one cost base with a cost base type of Burden Cost. This restriction ensures that Oracle Fusion Project Costing does not burden an expenditure type more than once. If you do not assign an expenditure type to a cost base, then burden costs are not applied to the raw costs with those expenditure types. In other words, the burdened cost for these transactions is the same as the raw cost of the transaction.

FAQs for Manage Burden Structures

Why is burden cost missing on a transaction?

Burden costs are not applied to a transaction if either of these situations exist:

- The expenditure type associated with the transaction is not assigned to a cost base.
- The project type for the project is not enabled for burden calculation. In this situation, raw cost is equal to burdened cost.

Manage Burden Schedules

Burden Schedule Components: How They Work Together

Burden schedules establish the multipliers used to calculate the burdened cost, revenue, or bill amount of each expenditure item charged to a project. The burden schedule determines which transactions the application burdens, based on burden cost bases defined in the burden structure. The project type determines which projects are burdened and contains the default burden schedule. A burden schedule type can be firm or provisional. You can override rates by using a schedule of multipliers negotiated for a specific project or task.

Burden Schedule Types

Use a firm burden schedule if you don't expect the multipliers to change. Firm burden schedules can have multiple versions, but never more than one version for a date range.

Use a provisional burden schedule if you based the multipliers on estimates, such as a yearly forecast budget. Provisional schedules can have provisional and actual versions active for the same date range. When the actual multipliers are available, replace the provisional version with the actual version. When you build the actual burden schedule, the application automatically reprocesses the impacted expenditure items to adjust the burden cost amounts.

Multipliers

The multiplier specifies the rate by which to multiply the raw cost amount to obtain the burden cost amount. If you don't use organization hierarchies, you can assign a multiplier to a combination of burden cost code and either a unique organization or all organizations. If you use organization hierarchies, you can assign a multiplier to a combination of burden cost code and either a unique organization or a parent organization.

You can use the organization hierarchy to cascade rates down to lower-level organizations without explicitly defined multipliers. If the Project Financial Management applications find a level in the hierarchy without a multiplier, they use the multipliers of the parent organization. Therefore, an organization multiplier schedule hierarchy is used to identify the exceptions. You only define the multipliers for an organization if you're overriding the multipliers of the parent organization.

The following diagram shows an example of organizations using multipliers. The parent organization, Headquarters, has two defined multipliers: Overhead with a multiplier of 2.0, and Administrative with a multiplier of 3.0.

- The application doesn't find any multipliers when it processes transactions for the East organization. Therefore, the application uses the multipliers from the parent organization, Headquarters.
- The Boston and New York City organizations are assigned an Administrative multiplier of 3.1, and no Overhead multiplier. Therefore, the application uses the Administrative multiplier of 3.1, and the Overhead multiplier from the Headquarters organization, when processing transactions for the Boston and New York City organizations.
- The West organization is assigned an Overhead multiplier of 2.3, and no Administrative multiplier. Therefore, the application uses the Overhead multiplier of 2.3, and the Administrative multiplier from the Headquarters organization, when processing transactions for the West organization.

- No multipliers are assigned to the San Francisco and Los Angeles organizations. Therefore, the application uses the Overhead multiplier from the West organization, and the Administrative multiplier from the Headquarters organization, when processing transactions for the San Francisco and Los Angeles organizations.

Burden Schedule Versions

Burden schedule versions define the date range within which multipliers are effective. You build the burden schedule to make the burden schedule versions active and available for use.

Note: Submit the Build New Organization Burden Multipliers process if you add an organization to the hierarchy after you built the schedule. A burden schedule version must be active to add multipliers for a new organization.

Related Topics

- Editing Burden Schedule Multipliers: Points to Consider

Burden Multipliers for New Organizations: How They Are Added to Burden Schedules

The Build New Organization Burden Multipliers process adds burden multipliers to burden schedules for an organization when you add a new organization to your organization hierarchy. If you don't add the organization to a specific burden schedule version, this process builds multipliers for the organization in all burden schedule versions. It uses the multipliers of the parent organization as defined in the organization hierarchy. A burden schedule version must be active to add multipliers for a new organization.

Run this process:

- After you create the organization and before you charge transactions using this organization as the expenditure organization.
- For the parent organization before you run it for the child organization.

If the new organization requires multipliers that are different than the multipliers assigned to the parent organization, you can manually add multipliers for each burden cost code on the burden schedule versions, and then rebuild the versions.

Settings That Affect Burden Multipliers for New Organizations

The process parameter is the new organization for which you want to build multipliers for existing burden schedule versions. Typically you run this process during implementation as part of the Burden Definition setup task list.

Process results are summarized in the Build New Organization Burden Multipliers Execution Report that displays the impacted burden schedules and burden schedule versions.

Related Topics

- Editing Burden Schedule Multipliers: Points to Consider

Recalculating Burden Costs: Points to Consider

Oracle Fusion Project Costing identifies existing transactions that are eligible for burden cost recalculation and marks the transactions for reprocessing. For example, when a multiplier for an organization and burden cost code changes on a burden schedule version, the application marks for recalculation all transactions for the organization that are charged to an expenditure type that's linked to the burden cost code.

Burden Cost Recalculation Is Required

Burden cost recalculation is required in the following situations:

- A build occurs on a burden schedule version that was previously built.
- An actual burden schedule version is built to replace a provisional burden schedule version.
- During recalculation, one or more transactions aren't marked for recalculation of burden cost amounts, such as when an expenditure item is locked by another unprocessed adjustment, or a technical error occurs in the process.

A burden schedule can have multiple versions. The **Recalculate Burden Cost** button is enabled for a burden schedule if at least one version requires recalculation.

Click the **Recalculate Burden Cost** button after selecting the burden schedule on the Manage Burden Schedules page for the process to identify and process eligible transactions for burden cost recalculation.

After the impacted transactions are identified for burden cost recalculation, the Recalculate Burden Cost process initiates the Import Costs process to create expenditure items and cost distribution lines for the transactions.

If burden cost recalculation is still required after the Recalculate Burden Cost process completes, then review the process output report to determine why the process didn't identify eligible transactions for recalculation.

Same Line Burdening

In case of same line burdening,

- The adjusted expenditure item creates a:
  - Reversed cost distribution line with the original burden schedule.
  - New cost distribution line with the updated burden schedule.
- Recalculation uses the latest burden schedule.

Separate Line Burdening

The Recalculate Burden Cost process initiates the Generate Burden Costs process to regenerate the burden costs.

Transactions that are being processed for the first time aren't picked up because the burden on the expenditure item is already reserved when the transaction is imported.

If the identified transactions are eligible for budgetary control then the latest cost distribution lines for these transactions are used.

Burden Cost Recalculation Isn't Required

Burden cost recalculation isn't required in the following situations:

- All burden schedule versions for the build are in a new status.
- Changes are made to burden schedule versions prior to the build.
- The Recalculate Burden Cost process is complete and all impacted transactions are successfully marked for burden cost recalculation.

If burden cost recalculation isn't required, the **Recalculate Burden Cost** button is disabled for the burden schedule.

Related Topics

- Editing Burden Schedule Multipliers: Points to Consider

Testing Burden Cost Calculations: Explained

Test burden cost calculations to view a breakdown of the total burdened cost for a specific project transaction and to verify your burden structure and burden schedule implementation. The test emulates an actual burden cost transaction for a set of criteria consisting of the project, task, burden schedule, expenditure type, expenditure organization, raw cost, quantity, and transaction date.

The application uses the burden schedule that you specify as burden cost criteria to calculate burden amounts. If you specify a project as burden cost criteria, and you don't specify a task or burden schedule, then the application uses the burden

schedule on the project. If you specify a project and task, and you don't specify a burden schedule, then the application uses the burden schedule on the task.

Test burden cost calculations to:

- Verify that the amounts for each burden cost code and for the total burdened cost are calculated correctly according to the specified criteria.
- Confirm that the correct schedule is used for the given project and task.
- Confirm that the desired burden cost codes and rates are used for the organization and expenditure type.

FAQs for Manage Burden Schedules

How can I prepare for creating burden schedules?

Before you create burden schedules, you must define burden structures and optionally define organization hierarchy.

What's a burden schedule?

Establishes the multipliers that are applied to the raw cost of each expenditure item to calculate the burdened cost, revenue, or bill amount charged to a project.

Assign burden schedules to project types, projects, or tasks. The project type provides the default burden schedule for a project. You can override the default burden schedule for each project by using a schedule of multipliers negotiated for the project or task.

In planning, when using planning rates, you assign a burden schedule in the project or financial planning options. The set of resources and rates are global and have no project context from which to derive a burden schedule.

What's burden costing?

A method of applying burden costs to raw costs to track the burdened cost of your projects.

What's the difference between a firm burden schedule and a provisional burden schedule?

Firm burden schedules are typically used for internal costing or commercial billing schedules. You can have multiple versions, but only one version for an effective date range. Use firm burden schedules if you expect no changes in your burden multipliers.

Provisional multipliers are typically estimates based on the annual forecast budget. When you determine the actual multipliers to apply to raw costs, then you replace the provisional multipliers with the actual multipliers. Use provisional multipliers if you don't know burden multipliers when calculating total burdened costs.

The adjustments are processed from provisional to actual changes for costing, revenue, and billing transactions.

Why can't I select a hierarchy tree version for the default organization hierarchy while creating burden schedules?

The organization tree version isn't in the Active status. You must change the status of the organization tree version to Active for it to display in the Manage Burden Schedules page.

Manage Project Types: Burdening Options

Burdening Options for Project Types: Points to Consider

Burdening is a method of applying one or more burden cost components to the raw cost amount of each individual transaction to calculate burden cost amounts. Use project types to control how burden transactions are created and accounted. If you enable burdening for a project type, you can choose to account for the individual burden cost components or the total burdened cost amount.

The following diagram illustrates the burden cost accounting options for project types.

You specify the following options when setting up burdening options for project types.

- Default Cost Burden Schedule
- Allow Cost Burden Schedule Change for Projects and Tasks
- Include Burden Cost on Same Expenditure Item
    - Create Expenditure Items for Burden Cost Components

- Create Separate Expenditure Item for Burden Cost
- Create Burden Cost Accounting Journal Entries
- Create Burdened Cost Accounting Journal Entries

Default Cost Burden Schedule

If you enable burdening for the project type, you must select the burden schedule to use as the default cost burden schedule for projects that are defined with this project type.

Allow Cost Burden Schedule Change for Projects and Tasks

Enable this option to allow a change of the default cost burden schedule when entering and maintaining projects and tasks. Don't enable this option if you want all projects of a project type to use the same schedule for internal costing.

Include Burden Cost on Same Expenditure Item

Enable this option to include the burden cost amount in the same expenditure item. You can store the total burdened cost amount as a value with the raw cost on each expenditure item. Oracle Fusion Project Costing displays the raw and burdened costs of the expenditure items on windows and reports.

If you include burden cost amounts on the same expenditure item, but wish to see the burden cost details, enable the option to create expenditure items for each burden cost amount on an indirect project and task.

Create Separate Expenditure Item for Burden Cost

Enable this option to account for burden cost amounts as separate expenditure items on the same project and task as the raw expenditures. The expenditure items storing the burden cost components are identified with a different expenditure type that is classified by the expenditure type class Burden Transaction. Oracle Fusion Project Costing summarizes the cost distributions to create burden transactions for each applicable burden cost code. The most important summarization attributes are project, lowest task, expenditure organization, expenditure classification, supplier, project accounting period, and burden cost code.

Create Burden Cost Accounting Journal Entries

Indicate whether to create an entry for the burden cost amount.

If burdened costs are calculated for reporting purposes only, and you don't want to interface burdened costs to the general ledger, you can disable the creation of accounting journal entries. If you select this option, only the burden cost, which is the difference between the burdened cost and raw cost, is interfaced to general ledger.

Create Burdened Cost Accounting Journal Entries

Indicate whether to account for the total burdened cost amount of the items. You typically use this option to track the total burdened cost amount in a cost asset or cost work-in-progress account.

The burdened cost is the sum of raw and burden costs. Therefore, selecting this option may result in accounting for raw cost twice. For example, assume that the raw cost of an item is 100 USD, the burden cost is 50 USD, and the burdened cost is 150 USD. When the application creates a journal entry for 150 USD, it accounts for the 100 USD that was already accounted for as raw cost, plus the 50 USD burden cost.

20 Project Foundation Configuration: Manage Project Types

Burdening Options for Project Types: Points to Consider

Burdening is a method of applying one or more burden cost components to the raw cost amount of each individual transaction to calculate burden cost amounts. Use project types to control how burden transactions are created and accounted. If you enable burdening for a project type, you can choose to account for the individual burden cost components or the total burdened cost amount.

The following diagram illustrates the burden cost accounting options for project types.

You specify the following options when setting up burdening options for project types.

- Default Cost Burden Schedule
- Allow Cost Burden Schedule Change for Projects and Tasks
- Include Burden Cost on Same Expenditure Item
  - Create Expenditure Items for Burden Cost Components
- Create Separate Expenditure Item for Burden Cost
- Create Burden Cost Accounting Journal Entries
- Create Burdened Cost Accounting Journal Entries

Default Cost Burden Schedule

If you enable burdening for the project type, you must select the burden schedule to use as the default cost burden schedule for projects that are defined with this project type.

Allow Cost Burden Schedule Change for Projects and Tasks

Enable this option to allow a change of the default cost burden schedule when entering and maintaining projects and tasks. Don't enable this option if you want all projects of a project type to use the same schedule for internal costing.

Include Burden Cost on Same Expenditure Item

Enable this option to include the burden cost amount in the same expenditure item. You can store the total burdened cost amount as a value with the raw cost on each expenditure item. Oracle Fusion Project Costing displays the raw and burdened costs of the expenditure items on windows and reports.

If you include burden cost amounts on the same expenditure item, but wish to see the burden cost details, enable the option to create expenditure items for each burden cost amount on an indirect project and task.

Create Separate Expenditure Item for Burden Cost

Enable this option to account for burden cost amounts as separate expenditure items on the same project and task as the raw expenditures. The expenditure items storing the burden cost components are identified with a different expenditure type that is classified by the expenditure type class Burden Transaction. Oracle Fusion Project Costing summarizes the cost distributions to create burden transactions for each applicable burden cost code. The most important summarization attributes are project, lowest task, expenditure organization, expenditure classification, supplier, project accounting period, and burden cost code.

Create Burden Cost Accounting Journal Entries

Indicate whether to create an entry for the burden cost amount.

If burdened costs are calculated for reporting purposes only, and you don't want to interface burdened costs to the general ledger, you can disable the creation of accounting journal entries. If you select this option, only the burden cost, which is the difference between the burdened cost and raw cost, is interfaced to general ledger.

Create Burdened Cost Accounting Journal Entries

Indicate whether to account for the total burdened cost amount of the items. You typically use this option to track the total burdened cost amount in a cost asset or cost work-in-progress account.

The burdened cost is the sum of raw and burden costs. Therefore, selecting this option may result in accounting for raw cost twice. For example, assume that the raw cost of an item is 100 USD, the burden cost is 50 USD, and the burdened cost is 150 USD. When the application creates a journal entry for 150 USD, it accounts for the 100 USD that was already accounted for as raw cost, plus the 50 USD burden cost.

Capitalization Options for Project Types: Points to Consider

You can assign assets to a project if capitalization is enabled for the project type. Use project types to enable capitalization and configure capitalization options that are inherited by the projects associated with that project type.

The following diagram illustrates the capitalization options for project types.

Specify the following information when setting up capitalization options for project types.

- Construction in Progress (CIP) Options
- Supplier Invoices Export Options
- Capitalized Interest Options

Construction in Progress Options

You specify the following Construction in Progress options when setting up capitalization options for project types.

Cost Type

Indicate whether to capitalize costs at the burdened or raw cost amount for projects with this project type.

Complete Asset Definition

Enable this option to require a complete asset definition in Oracle Fusion Project Portfolio Management before sending costs to Oracle Fusion Assets. If you select this option, you don't need to enter information for the imported asset lines in Oracle Fusion Assets. The Transfer Assets to Oracle Fusion Assets process places asset lines with complete definitions directly into the post queue in Oracle Fusion Assets.

Asset Line Grouping Method

Specify one of the following methods to summarize asset lines.

- **All**, which is the highest level of summarization
- **Expenditure Category**
- **Expenditure Category Nonlabor Resource**
- **Expenditure Type**
- **Expenditure Type Nonlabor Resource**
- **Expenditure Organization**
- **Expenditure Item**

Asset Cost Allocation Method

Select one of the following predefined allocation methods to automatically distribute indirect and common costs across multiple assets, or select no allocation method.

- **Actual Units**
- **Current Cost**
- **Estimated Cost**
- **Standard Unit Cost**
- **Spread Evenly**

Event Processing Method

Specify a capital event processing method to control how assets and costs are grouped over time. You can select either periodic or manual events, or no events.

Group Supplier Invoices

Enable this option to consolidate the expenditure items on a supplier invoice into one asset line according to the asset line grouping method. Deselect this option to send the lines to Oracle Fusion Assets based on the supplier invoice export option.

If you specify the grouping method as All, then no grouping occurs and asset lines are split into multiple lines when you transfer them from Oracle Fusion Project Costing to Oracle Fusion Assets.

Supplier Invoice Export Options

If you choose not to group supplier invoices, then select one of the following supplier invoice export options.

- **As New Additions**: Sends each expenditure item on a supplier invoice line to Oracle Fusion Assets as a separate addition line with a status of New.
- **As Merged Additions**: Sends each supplier invoice line to Oracle Fusion Assets as a separate addition line with the status of Merged.

Previously capitalized assets are transferred as new additions to Oracle Fusion Assets. If the asset was assigned an asset number in Project Costing, then you must remove or change the asset number in Oracle Fusion Assets before you can post the new addition.

After the addition lines are sent to Oracle Fusion Assets, you can split, merge, or split the lines manually in Oracle Fusion Assets.

Capitalized Interest Options

Use this field to specify a default interest rate schedule for capitalized interest.

You can select the **Allow Override** option to allow an override of the default capitalized interest rate schedule for individual projects.

Associating Project Types and Class Categories: Examples

Project classifications group your projects according to categories and codes that you define. When you associate project classifications with project types, the classification is available for selection on projects with that project type.

Use any of the following methods to associate class categories with project types:

- Add a classification to the project type definition
- Add a project type to the class category definition
- Enable the **Assign to all Project Types** option on the class category definition

Add Classification to Project Type Definition

The following diagram shows an example of three classifications associated with a project type definition. In this example, the Industry Sector, Reporting Group, and Media Sector classifications are available for selection on projects with the Sales Proposal project type.

For each classification that you associate with the project type, you can enable the **Assign to All Projects** option to automatically add the classification to the project definition for all new projects with the project type. When this option is enabled, all projects with this project type must be assigned a class code for the class category.

Add Project Type to Class Category Definition

The following diagram shows an example of three project types associated with a class category definition. In this example, the Industry Sector classification is available for selection when you create projects with the Sales Proposal, Consulting, or Internal project types.

For each project type that you associate with the class category, you can enable the **Assign to All Projects** option to automatically add the class category to the project definition for all new projects with any of these project types. When this option is enabled, all projects with this project type must be assigned a class code for the class category.

Assign to All Project Types

The following diagram shows an example of a class category definition with the **Assign to All Project Types** option enabled. In this example, a code for the Industry Sector class category is required for all projects, regardless of the project type.

Asset Cost Allocation Methods: Explained

The asset cost allocation method determines how indirect or common costs incurred on a project are allocated to multiple assets.

You can specify an asset cost allocation method to enable Oracle Fusion Project Costing to automatically allocate unassigned asset lines and common costs across multiple assets. Unassigned asset lines typically occur when more than one asset is assigned to an asset grouping level.

Projects and project templates inherit a default asset cost allocation method from the associated project type. You can override the default at the project level. If you use capital events to allocate costs, then you can also override the asset cost allocation method at the event level.

Asset Cost Allocation Methods

The following table describes the available asset cost allocation methods.

Method	Basis of Cost Allocation
Actual Units	Number of units defined for each asset
Current Cost	Construction-in-process (CIP) cost of each asset
Estimated Cost	Estimated cost of each asset
Standard Unit Cost	Combination of the standard unit cost and the number of units defined for each asset

Method	Basis of Cost Allocation
Spread Evenly	Equal allocation of cost to each asset

Related Topics

- What's a standard unit cost method?

21 Project Foundation Configuration: Define Action Controls

Action Controls: Explained

Action controls control data that's imported from other applications to Project Financial Management applications. An action control prevents you from performing an action in Project Financial Management applications on a record that originated in another application. The action controls aren't applicable in Project Execution Management applications.

Available Action Controls

You can set controls on the following actions:

- Add Financial Task
- Delete Financial Task
- Update Project Dates
- Update Project Description
- Update Project Name
- Update Project Number
- Update Project Organization
- Update Project Status
- Update Financial Task Dates
- Update Financial Task Description
- Update Financial Task Name
- Update Financial Task Number
- Update Financial Task Organization

For example, consider the following scenario:

- You imported a project from Microsoft Project.
- Your business rule states that project and task dates are always maintained in Microsoft Project.
- To ensure data integrity, you want to prevent projects and tasks that originate in Microsoft Project from being deleted in Project Financial Management applications.

To enforce this rule, you enter the following action controls for the source Microsoft Project:

- Update Project Dates
- Update Financial Task Dates
- Delete Financial Task

22 Project Foundation Configuration: Distribute and Install Desktop Integrator Client

Project Costs: How They're Imported

Collect and import all types of project costs from Oracle Fusion and third-party applications. During this process you can validate transactions to reduce corrections and rework. Before you import the transactions, you can review the exceptions and correct the errors.

Settings That Affect Transactions Import

Setup options in the transaction document and document entry specify how cost transactions are imported and processed.

How Transactions Are Imported

You create, validate, and transfer the transactions to the Oracle Fusion Project Costing interface as specified in the following table.

Transactions Type	Creating Transactions	Validating Transactions	Importing Transactions
Oracle Fusion Project Costing • Uncosted labor transactions • Uncosted nonlabor transactions	Initially only in Excel templates. You can later edit or add transactions in the Manage Unreleased Costs page.	Validation is compulsory and is performed automatically during transaction entry.	Click the **Export** button in Excel spreadsheet to export, and optionally, process transactions.
Third-Party Application • Uncosted labor transactions • Uncosted nonlabor transactions • Costed or accounted labor or nonlabor transactions	Web services, ADFdi Excel spreadsheets, or Oracle Cloud templates. You can also create transactions in the Manage Unprocessed Costs page.	If you are using the ADFdi Excel, optionally validate transactions during export. Validation is optional when you enter or export transactions but is always performed when you run the **Import Costs** process.	Methods to import: • For ADFdi Excel, click the **Export** button on the Excel spreadsheet to export, and optionally, process transactions. • Use web services to transfer transactions to the Oracle Fusion Project Costing interface. • For Oracle Cloud, use the Load Interface File for Import process. You can load data to interface tables using predefined templates and the Load Interface File for Import scheduled

Transactions Type	Creating Transactions	Validating Transactions	Importing Transactions
			process, which are both part of the External Data Integration Services for Oracle Cloud. For more information about file-based data import, see the File Based Data Import guide for your cloud services.
Other Oracle Fusion Applications	Source applications	Validation is compulsory. The Import Costs process revalidates the cost transactions that you import if the **Revalidate during import** option is enabled at the transaction source document level. This option is available for the following transaction sources: • Oracle Fusion Payables • Oracle Fusion Cost Management • Oracle Fusion Time and Labor	Use the **Import Costs** process.

All transactions are validated but at different points, for example, transaction entry, transfer, or processing. If you're exporting transactions from ADFdi Excel spreadsheets, you can release the transactions directly from the spreadsheet by selecting the **Process Costs** option. Costs are submitted for the **Import Costs** process avoiding the need to do it from the application.

The **Process Costs** option is not available in the Excel template, when you have separate duties for entering and releasing expenditure batches. You can review the expenditure batches in the Manage Unreleased Costs page and submit them for processing.

After you import the transactions, the application tracks transactions with errors including the details for the cause of the error and the action to be taken to fix the error. The successful transactions are ready for cost processing.

Related Topics

- Project Costs: How They're Validated
- Transaction Document Import and Accounting Options: Points to Consider
- Source, Document, and Document Entry Components: How They Work Together

Document and Document Entry Edit Options of Predefined and Third-Party Sources: Explained

You can define the transaction document and document entry options for transactions that originate from predefined sources and third-party application sources. However, there is a limitation in editing these options. The options that you can edit for

each source depend on whether the document entry is predefined for use with Oracle Fusion Applications or defined during implementation for use with third-party application sources.

Document Edit Options

The following table provides a list of document options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Options	Predefined Sources	Third-Party Application Sources
Import raw cost amounts	Not editable	Not editable
Import burdened cost amounts	Not editable	Not editable
Allow duplicate reference	Not editable	Not editable
Allow override of person organization	Not editable	Not editable
Reconcile with source	Not editable	Editable
Archive after import	Editable	Editable
Revalidate during import	Editable	Not editable
Accounted in source application	Not editable	Not editable
Create raw cost accounting journal entries	Not editable	Not editable
Create adjustment accounting journal entries	Editable	Editable

Document Entry Edit Options

The following table provides a list of document entry options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Entry Options	Predefined Sources	Third-Party Application Sources
Expenditure type class	Not editable	Not editable
Allow adjustments	Editable	Editable
Allow reversals	Not editable	Editable
Allow interface modifications	Not editable	Editable

Document Entry Options	Predefined Sources	Third-Party Application Sources
Process cross-charge transactions	Editable	Editable
Create related items	Editable	Editable

Related Topics

- Source, Document, and Document Entry Components: How They Work Together
- Transaction Document Import and Accounting Options: Points to Consider

FAQs for Distribute and Install Desktop Integrator Client

Can I change the source and document for transactions after exporting them to Oracle Fusion Project Costing?

No. You can't change the source, document, or document entry after exporting a transaction to Project Costing.

What's the difference between export to Excel and desktop integration for Excel?

Use the **Export to Excel** button or menu option to download data from a table to view or analyze. You get a Microsoft Excel file, of any type that Excel supports, with records from the table.

Use the desktop integration for Excel to create or edit records in an Excel workbook and upload the records back into the application. It's helpful for mass updates or working offline. In most cases, you download the desktop integrated workbook from a link in a panel tab, the regional area, or a table.

Related Topics

- Using Desktop Integrated Excel Workbooks: Points to Consider

Why can't I find the business unit in the downloaded desktop Excel integration spreadsheets?

If your access is revised, then you have to download the desktop Excel integration spreadsheets again. For example, if you initially have access to Vision Operations business unit, then you view only this business unit listed in the Excel spreadsheets. If new business units are assigned or removed, you must download the templates again to view the business units according to your access in the Excel spreadsheets.

23 Project Control Configuration: Overview

Budgeting and Forecasting Security: Explained

Budget and forecast security is determined by a combination of project role, security roles (job and duty roles) and privileges, and workflow setup.

The following sections describe the privileges required to perform various steps in the budget creation, submission, and approval process. They also describe the impact of using workflow to manage status changes.

Note: The privileges and workflow setup for forecasting mirrors that for budgeting.

Creating and Submitting a Budget Version

The following text and table describe the access required to create and submit a budget version.

Step	Action	Privilege
1	Access budget versions for a project	Manage Project Budget
2	Create a budget version	Create Project Budget **Note:** The privilege required for editing budget versions in Excel is Manage Project Budget Excel Integration.
3	Submit working version	Manage Project Budget Working Version
4	Create baseline directly	Create Baseline Version Data **Note:** Project managers may select to create a baseline directly instead of submitting a version for approval first.

Creating a Baseline for a Budget Version

The following text and table describe the access required to create a baseline for a budget version or reject it.

Step	Action	Privilege
1	If using workflow, receive notification of budget submission	NA (Approver e-mail ID is entered manually by users)

Step	Action	Privilege
2	Access budget versions for a project	Manage Project Budget
3	Create baseline or reject budget	Create Baseline Version Data

Reworking a Rejected Budget Version

The following text and table describe the access required to required to rework a rejected version (set it back to Working status) or delete it, if it is no longer required.

Step	Action	Privilege
1	Access budget versions for a project	Manage Project Budget
2	Rework working version	Manage Project Budget Working Version
3	Delete working version	Manage Project Budget Working Version

Related Topics

- Project Roles in Budgeting and Forecasting: Explained

Budget and Forecast Workflow: Explained

Use Business Process Engineering Language (BPEL) workflows to manage budget and forecast approvals. To do so, select to use workflow for status changes when creating or editing a financial plan type.

The following is a description of security considerations, approval rules, and the workflow process.

Addressing Security and Setting Approval Rules

Project managers and project administrators can create budget or forecast versions and submit them for approval. However, only the designated project manager for the project can approve budget or forecast versions.

Submitted versions undergo a single level of approval. However, during implementation, you can define approval rules based on the following parameters:

- Total raw cost
- Total burdened cost
- Labor effort
- Equipment effort
- Margin percentage
- Margin

For example, set rules like the following:

- If total burdened cost is less than or equal to $50,000, then the project administrator can approve budget versions.
- If total burdened cost is greater than $50,000, then the project manager must approve budget versions.

Understanding the Budget and Forecast Status Flow

The following table and graphic describe the stages in the budget and forecast status flow.

Action Performed	Status	Notification Sent To	Action Required
Create version	Working	Creator (requester)	None.
Submit version	Submitted	Requester and approver	Approver can approve or reject version.
Approve version	Approved or Baseline	Requester and approver	None.
Reject version	Rejected	Requester and approver	None. Requester can optionally rework version.
Rework version	Working	Requester and approver	None.

FAQs for Project Control Configuration: Overview

What happens when a budget or forecast version is submitted?

Several changes occur when you submit a current working version of a budget or forecast for approval.

- The version status changes to Submitted.

- If the project manager approves the version, the version status changes to either Current Baseline or Current Approved.

Note: A new current working version is created simultaneously when you submit the current working version for approval.

If you use Business Process Engineering Language (BPEL) workflow for status changes, then submitting a budget or forecast triggers a notification to the project manager and the requesters must manually specify the approver details.

24 Project Control Configuration: Manage Period Profiles

Period Profiles: Explained

Period profiles specify how periods are grouped and displayed when you edit financial or project plans that allow entry of amounts based on a calendar.

> **Note:** Period profiles don't affect the periods for which you enter amounts. That is determined by the start and end dates of the financial or project plan line.

You select a period profile when specifying plan settings for a financial plan type or a project plan type. With the appropriate access, you can override this selection when creating budget or forecast versions for a project. Similarly, you can override the period profile associated with the project plan type at the project template or project level.

Period profiles are based on groups of periods from either an accounting calendar or a project accounting calendar. You can define an unlimited number of period groupings of varying duration in a period profile.

Predefined Period Profiles

The Project Financial Management applications contain two predefined period profiles:

- One based on the accounting calendar
- One based on the project accounting calendar

Both have 52 single period groupings. That is, each period grouping contains one period of a week's duration.

Selecting a Current Period for a Period Profile: Example

You designate one period grouping in a period profile as the current period. The current period provides a reference point for grouping historical, current, and future period amounts.

When reviewing financial or project plans, the current planning period determines the period grouping with the current period. Periods before and after the current period are grouped using the period groupings. Amounts for periods outside the range specified by the period profile are summed and displayed as total amounts for a preceding period or succeeding period.

Scenario

The following table describes a period profile set up to accommodate detailed and summary-level planning for long-term projects. This period profile enables entry of amounts for a mix of monthly, quarterly, semiannual, and annual periods for a span of five years.

Period Grouping	Number of Periods	Year
1	12	1
2	6	2
3	3	2
4	3	2
5	1	3
6 (current period)	1	3
7	1	3
8	1	3
9	1	3
10	1	3
11	3	3
12	3	3
13	12	4
14	12	5

Assume that the period profile is associated with a project with the following details:

- Start Date: July 1, 2005
- Duration: 10 years
- Current Planning Period: Aug-2010

When you review financial or project plans, information appears as follows:

Period or Period Group	Number of Periods	Duration
Preceding	36	July 2005 to June 2008
1	12	July 2008 to June 2009
2	6	July 2009 to December 2009
3	3	January 2010 to March 2010

Period or Period Group	Number of Periods	Duration
4	3	April 2010 to June 2010
5	1	July 2010
6	1	August 2010
7	1	September 2010
8	1	October 2010
9	1	November 2010
10	1	December 2010
11	3	January 2011 to March 2011
12	3	April 2011 to June 2011
13	12	July 2011 to June 2012
14	12	July 2012 to June 2013
Succeeding	36	July 2013 to June 2015

Using Period Profiles: Examples

Period profiles specify how periods are grouped and displayed when you edit financial or project plans that allow entry of amounts based on a calendar.

The following are examples of defining period profiles for planning short-term and long-term projects. Both examples assume the use of one-month periods from the accounting calendar.

Period Profiles for Short-Term Projects

The following table describes a period profile configuration that accommodates detailed planning for short-term projects. This period profile enables entry of amounts by month for a period of one year.

Period Grouping	Number of Periods
1	1

Period Grouping	Number of Periods
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1

Period Profiles for Long-Term Projects

The following table describes a period profile configuration that accommodates detailed and summary-level planning for long-term projects. This period profile enables entry of amounts for a mix of monthly, quarterly, semiannual, and annual periods for a span of five years.

Period Grouping	Number of Periods	Year
1	12	1
2	6	2
3	3	2
4	3	2
5	1	3
6	1	3

Period Grouping	Number of Periods	Year
7	1	3
8	1	3
9	1	3
10	1	3
11	3	3
12	3	3
13	12	4
14	12	5

25 Project Control Configuration: Manage Spread Curves

Spread Curves: Explained

Spread curves let you distribute quantity, cost, and revenue amounts automatically across accounting or project accounting periods. You assign a spread curve to each resource class. Planning resources (in the planning resource breakdown structure) inherit the spread curve setting from the associated resource class. You can change the spread curve for the planning resource and for any corresponding task assignments, or budget or forecast lines.

You can create spread curves, use predefined spread curves, or edit them as required. This topic describes the following spread curve components:

- Spread curves
- Spread points
- Distribution factors
- Predefined spread curves

Spread Curves, Spread Points, and Distribution Factors

Spread curves other than Daily Spread Basis and Even contain 10 spread points. Specify distribution factors for any combination of the spread points.

Note: When using a daily spread basis, the application allocates amounts to each period based on the ratio of the days in the period to the duration of the task assignment.

Spread points are distributed proportionately across periods during financial or project planning. For example, if amounts are to be spread across four periods, the application allocates the combined value of 2.5 spread points to each period. The spread points for each period are the total number of spread points divided by the total number of periods (10 / 4).

Distribution factors are prorated according to the spread points allocated to each period. For example, if $100 is to be spread across four months for a planning resource that uses an even spread curve (where amounts are distributed evenly), the application assigns each period $25. The amount assigned to each period is the total amount multiplied by the spread points for the period (2.5 * 10).

Important: Spread points without values are assigned a zero distribution factor and hence corresponding periods aren't allocated any amounts.

Predefined Spread Curves

The following table lists the predefined spread curves:

Name	Description	Distribution Factors
Even	Linear distribution of financial or project plan values across periods.	10-10-10-10-10-10-10-10-10-10

Name	Description	Distribution Factors
Prorated Even	Linear distribution of financial or project plan values across periods, with an exception of the first period and last period in the financial plan. Financial or project plan values for the first period and last period are prorated based on the number of days in the period.	10-10-10-10-10-10-10-10-10-10
Back Loaded	Back-loaded distribution of financial or project plan values across periods. Assigned amounts increase over succeeding periods.	0-5-10-15-20-25-30-35-40-45
Front Loaded	Front-loaded distribution of financial or project plan values across periods. Assigned amounts decrease over succeeding periods.	45-40-35-30-25-20-15-10-5-0
S Curve	S-shaped distribution of financial or project plan values across periods.	18-10-8-10-15-17-18-17-15-8
Bell Curve	Bell-shaped distribution of financial or project plan values across periods. Assignment of plan values is highest in the middle periods.	0-4-10-12-14-12-10-4-0-0
Daily Spread Basis	Spread is based upon the number of days in each financial period throughout the duration of the task assignment. Amounts are proportionally distributed throughout all periods for the duration of the task assignment.	None

Project and Financial Plan Period Amounts: How They Are Calculated Using Daily Spread Basis

Assign the Daily Spread Basis spread curve to a resource class or planning resource to proportionately distribute budget, forecast, or project plan amounts across periods based on the ratio of the days in each period to the duration of the task assignment.

Settings That Affect Amount Distribution

You can't define spread points for the Daily Spread Basis spread curve. Therefore, distribution factors aren't calculated. Task assignment start and finish dates determine the number of days in each period, including the first and last periods, and consequently the allocation factor for each period.

Note: Assignment start and finish dates are included in the number of days in the period.

How Daily Spread Basis Amounts Are Calculated

When calculating period amounts, Oracle Fusion Project Portfolio Management performs the following steps:

1. Determines the number of days in the first and last period within the task assignment duration using assignment start and finish dates.
2. Determines the number of days in the other periods within the assignment duration.
3. Determines the total number of days for the duration of the task assignment.
4. Calculates the allocation factor for each period using the following formula:

   Period Allocation Factor = Number of Days in Period / Task Assignment Duration
5. Calculates the periodic amount using the following formula:

   Amount = Period Allocation Factor * Total Resource Cost or Revenue

Example: Standard Accounting Calendar

In this example, a company uses an accounting calendar with periods that are identical to calendar months. A resource is assigned to a task for 121 days, from February 21 until June 21.

The following table shows how the task assignment days are determined, and the resulting allocation factors.

Month	Period Dates	Days in Period	Task Assignment Days	Period Allocation Factor
January	January 1 through January 31	31	0	0
February	February 1 through February 28	28	8	8 / 121 = 0.0661
March	March 1 through March 31	31	31	31 / 121 = 0.2561
April	April 1 through April 30	30	30	30 / 121 = 0.2479
May	May 1 through May 31	31	31	31 / 121 = 0.2561
June	June 1 through June 30	30	21	21 / 121 = 0.1735
			121	121 / 121 = 1

Example: 4-4-5 Accounting Calendar

In this example, a company uses a 4-4-5 accounting calendar, with four weeks in the first and second months of the quarter, and five weeks in the third month of the quarter. A resource is assigned to a task from February 21 until June 21.

The following table shows how the task assignment days are determined, and the resulting allocation factors.

Month	Weeks in Period	Week Number	Ledger Start Date	Ledger End Date	Days in Period	Days in Ledger	Task Assignment Days	Period Allocation Factor
January	4	1	1	7	7			
		2	8	14	7			
		3	15	21	7			
		4	22	28	7	28	0	0
February	4	1	29	4	7			
		2	5	11	7			
		3	12	18	7			
		4	19	25	7	28	5	5 / 121 = 0.0413
March	5	1	26	4	7			
		2	5	11	7			
		3	12	18	7			
		4	19	25	7			
		5	26	1	7	35	35	35 / 121 = 0.2892
April	4	1	2	8	7			
		2	9	15	7			
		3	16	22	7			
		4	23	29	7	28	28	28 / 121 = 0.2314
May	4	1	30	6	7			
		2	7	13	7			
		3	14	20	7			

Month	Weeks in Period	Week Number	Ledger Start Date	Ledger End Date	Days in Period	Days in Ledger	Task Assignment Days	Period Allocation Factor
		4	21	27	7	28	28	28 / 121 = 0.2314
June	5	1	28	3	7			
		2	4	10	7			
		3	11	17	7			
		4	18	24	7			
		5	25	1	7	35	25	25 / 121 = 0.2066
							121	121/121 = 1

Calculating Distribution Factors for Spread Curves: Examples

Distribution factors are prorated according to the spread points allocated to each period.

For example, if $100 is to be spread across four months for a planning resource that uses a prorated even spread curve (where amounts are distributed evenly), then each period is assigned $25 each. That is, 10 spread points spread over 4 months equals 2.5 spread points per period. Each spread point has a distribution factor of 10.

The following is a description of how distribution factors are calculated for full or partial periods.

Calculating Weighted Distribution Factors

To continue our previous example: Say our planning resource was using a back-loaded spread curve rather than a prorated even spread curve.

> **Note:** Default distribution factors for a back-loaded spread curve are as follows: 0-5-10-15-20-25-30-35-40-45. Hence the total distribution for the spread curve is 225.

The following table describes how distribution factors are determined and amount allocated over the four planning periods.

Period	Distribution Factor Calculation	Weighted Distribution Factor	Distribution Percentage	Distributed Amount
1	Distribution factors assigned to spread points 1 and 2 plus half of the distribution factor assigned to spread point 3: 0 + 5 + (0.5 * 10)	10.0	4.44%, (10.0/225)	$4.44
2	Half of distribution factor assigned to spread point 3 plus distribution factors assigned to spread points 4 and 5: (0.5 * 10) + 15 + 20	40.0	17.78%, (40.0/225)	$17.78
3	Distribution factors assigned to spread points 6 and 7 plus half of the distribution factor assigned to spread point 8: 25 + 30 + (0.5 * 35)	72.5	32.22%, (72.5/225)	$32.22
4	Half of distribution factor assigned to spread point 8 plus distribution factors assigned to spread points 9 and 10: (0.5 * 35) + 40 + 45	102.5	45.56%, (102.5/225)	$45.56
	Totals	225	100%	$100

Deriving Spread Point Values and Prorating Distribution Factors for Partial Periods

Transaction start dates associated with a planning resource or task frequently don't coincide with the start or end dates of a period. In such a case, the actual number of planning resource or task transaction days determines how spread points and constituent distribution factors are allocated to full and partial periods.

Assume that the dates for a task assignment cover only 15 days of the first month (a 30-day month) of a four-month planning period. That first month represents the value of 0.5 spread points.

In such a case, the spread point value for each full period is calculated by dividing the total number of spread points (10) by the number of periods corresponding to the transaction (3.5). In other words, spread point values are as follows:

- Full period : 10/3.5 = 2.8571
- Partial Period: (10/3.5) * 0.5 = 1.4287

Related Topics

- How are distribution factors calculated for forecast ETC periods?

26 Project Control Configuration: Manage Financial and Project Plan Types

Financial and Project Plan Types: Explained

Financial plan types contain default setup information and planning options that you use for creating different types of budgets or forecasts. Similarly, project plan types contain default information used for creating a project plan and capturing progress.

When creating budget or forecast versions for a project, you must select an appropriate financial plan type. Versions inherit planning options from the financial plan type. Depending on access levels, you can change some settings.

You associate one project plan type to a project template, and override planning options if required. Projects created using the template inherit the updated planning options. You can revise these options at the project level, or even replace the project plan type.

Financial and Project Plan Setup Options

The following is a description of the basic budget, forecast, or project plan setup options that determine how a plan type is used in the context of a project. Except for third-party scheduling, you can't edit these options at the project level.

Option	Location	Description
Planning amounts	Financial plan type	Indicates that the financial plan type supports the creation of versions with the following amounts: • Cost amounts • Revenue amounts • Both cost and revenue amounts • Either cost or revenue amounts
Approved budget or primary forecast	Financial plan type	Determines whether a financial plan type is used for creating approved budget versions or primary forecast versions that are used for plan comparison or project performance reporting.
Default financial plan type	Financial plan type	Determines whether the financial plan type is the default selection when you create budget or forecast versions.
Workflows	Financial plan type	Enables the use of a workflow for managing budget or forecast status changes.
Third-party scheduling software	Project plan type	Indicates whether project planning is performed in Microsoft Project.

Option	Location	Description
		If third-party scheduling is disabled in the project plan type, you can use the associated project or project template to create a project in Microsoft Project. However, you can't export the new project or link it to one created in Oracle Fusion Project Portfolio Management.
Multiple transaction currencies	Financial and project plan type	Enables entry of plan amounts in currencies other than the project currency.
Budgetary control settings	Financial plan type	Manages options for creating control budgets in Oracle Fusion Budgetary Control.

Financial Plan Types and Project Budget Versions: How They Work With Budgetary Controls

Financial plan types and budget versions in Oracle Fusion Project Control contain attributes that enable you to automatically create control budgets in Oracle Fusion Budgetary Control. Configuring these attributes on a financial plan type enable the budget versions that you create from that financial plan type to create control budgets.

This figure shows the components of a financial plan type that you must configure to enable a project budget version for creating a control budget in Oracle Fusion Budgetary Control. The general budget information includes the plan class,

planning amounts, and the enable budgetary controls option. The budgetary control settings are the control budget, control level, default rate type, and tolerance percentage.

General Information and Budget Options

Select the following options on the Edit Financial Plan Type page:

- Plan Class: Budget
- Planning Amounts: Costs

Enable the financial plan type for budgetary controls. If you don't select this option, the Budgetary Control Settings tab won't be available in the Planning Options section of the financial plan type or budget versions.

Note: A project can have only one financial plan type that is enabled for budgetary controls. If a financial plan type that is enabled for budgetary controls is used by a budget version on a project, then you can't create another budget version with a different financial plan type enabled for budgetary controls.

Budgetary Control Settings

The Budgetary Control Settings tab in the Planning Options section of the financial plan type and budget version contains the instructions for creating control budgets. The following table describes the attributes and their impact on control budgets.

Attribute Name	Description
Control Budget	The level in the project hierarchy at which you can enter budgetary control amounts.

Attribute Name	Description
	Enter amounts in the budget version at either the project level or the top resource level. The control budget will contain those amounts, and Oracle Fusion Budgetary Control will use the project and top resource information to create the control budget account segments.
Control Level	The level of funds reservation for expenditures that impact the control budget. The levels are: • Absolute: Reserve funds for transactions that impact the control budget only if funds are available in the budget. • Advisory: Reserve funds for transactions that impact the control budget whether or not enough funds are available in the budget. However, you can review any exceptions that are generated if a transaction exceeds the funded amount. • Track: Reserve funds for all transactions that impact the control budget. Don't issue a notification if a transaction doesn't have enough funds in the budget. • Do Not Create Control Budget: Don't create a budget in Oracle Fusion Budgetary Control for this budget version.
Default Rate Type	The rate type that converts the amount of a transaction to the currency used in the control budget before the funds check.
Tolerance Percentage	The percentage by which a transaction can exceed the budgeted amount before Oracle Fusion Budgetary Control issues a warning notice or restricts the funds reservation.

Related Topics

- Why can't I edit the budgetary control settings for a budget version?

Planning Amounts in Financial Plan Versions: Critical Choices

For each financial plan type, you select the planning amounts included in the financial plan versions created using the plan type.

Options include the following:

- Cost amounts only
- Revenue amounts only
- Both cost and revenue amounts
- Either cost or revenue amounts

Planning for Cost Only or Revenue Only

If you select to plan only for cost or revenue, then all budget or forecast versions created for the financial plan type contain only those amounts.

When you review versions created for cost-only financial plan types, margin values and other comparisons dependent on revenue amounts aren't available. Similarly, cost amounts are unavailable during review of versions of revenue-only financial plan types.

Planning for Both Cost and Revenue

You can select to plan for cost and revenue together. In such a case, each budget or forecast version created for the financial plan type contains both cost and revenue amounts.

Planning for Either Cost or Revenue

If you select to plan for cost and revenue separately, then each budget or forecast version created for the financial plan type can contain either cost or revenue amounts. When you review cost versions, select any revenue version created for the same financial plan type as the source for revenue amount for use in plan comparison.

Summarized Financial Plan Types: Explained

Summarized financial plan types are financial plan types whose previous and current approved versions (for forecasts) or original and current baseline versions (for budgets) are used in summarization of project performance data.

Particular financial plan types are included in summarization by default, while you must manually select others.

Default Financial Plan Types

Approved forecast and baseline budget versions of the following financial plan types are automatically included in summarization of project performance data:

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

A budget or forecast financial plan type may support both cost and revenue in one version.

User-Selected Financial Plan Types

Apart from the default financial plan types, you can include up to four others in summarization of project performance data.

Tip: You can include a financial plan type before it's used on a project for creating a version.

You can replace a user-selected financial plan type until project performance data is summarized for reporting. After that, you can only disable the financial plan type to exclude it from further summarization.

Related Topics

- Performance Data Summarization: How It's Processed

Manage Financial and Project Plan Types: Set General Planning Options

Associating Sets with Financial Plan Types: Example

You associate sets with financial or project plan types so that project managers can use them to create financial plans (budget or forecast versions) or project plans for projects or project templates. Financial or project plan types are available for selection only when projects or project templates are created for project units linked to selected sets.

The following example illustrates the relationship between financial plan types, sets, and project units. Project plan types share an identical relationship with sets and project units.

Scenario

An organization has two designated project units for project creation: Project Unit 1 and Project Unit 2. Project Unit 1 is associated with Set 1 and Project Unit 2 is associated with Set 2.

During implementation, two financial plan types were created: Financial Plan Type A and Financial Plan Type B. Financial Plan Type A is associated with Set 1. However, Financial Plan Type B is associated with both Set 1 and Set 2.

In such a case, project managers working on projects for Project Unit 1 can use only Financial Plan Type A to create financial plan versions. Project managers working on projects for Project Unit 2 can use both Financial Plan Type A and Financial Plan Type B.

The following diagram further illustrates the relationship between financial plan types, sets, and projects. Project plan types share the same relationship with sets.

Selecting Rate Schedules for Project and Financial Planning: Points to Consider

When specifying rate settings for financial or project plan types, you select to use either actual or planning rates for calculating cost or revenue for planning resources.

Actual rates are those that are used for calculating actual amounts for expenditure items. If you use planning rates, then you can select rate schedules created specifically for planning purposes.

The following is a description of the points to consider when selecting actual or planning rate schedules for calculating raw costs, burdened costs, and revenue.

Selecting Rate Schedules when Using Actual Rates

When using actual rates for project plan types and financial plan types that support cost amounts, you select cost rate schedules at the resource class level. Similarly, for financial plan types that support revenue amounts, you select bill rate schedules at the resource class level. If the application is unable to determine cost or bill rates for a planning resource, then it uses the resource class rates schedules you specify here.

Selecting Rate Schedules when Using Planning Rates

Some of the reasons for using planning rates are as follows:

- Project planning extends into the future, beyond dates for which actual rates are available. Using planning rates enables you to plan for future periods by making assumptions about potential rate increases or decreases.
- Planning is at a more summary level than when using actual rates. For example, use job-based rate schedules to plan, but actually track labor costs using cost rates defined at the employee level.

When using planning rates, you select rate schedules at the resource, job, and resource class levels. The following table summarizes the precedence order for determining cost or bill rates for a planning resource when deriving raw costs or revenue for rate-based planning resources.

Rate Source	Precedence	Description
Override rate	1	Rate manually entered by users in the budget, forecast, or project plan
Labor or nonlabor rate schedules	2	Rate schedules selected for labor or nonlabor resources
Job rate schedules	3	Applicable only for labor resources
Resource class rate schedules	4	Used when rates are not available at the resource level. Specifying a resource class rate schedule is optional.

Specifying a Burden Schedule when Using Planning Rates

Optionally specify a burden schedule when specifying planning rate schedules. Project Financial Management applications use this burden schedule to calculate the burdened cost for all planning resources (including those that are not rate-based).

If an expenditure type is not associated with the planning resource, then Project Financial Management applications use the expenditure type defined for the associated resource class to determine the burden multiplier, and ultimately, the burdened cost.

Manage Financial Plan Types: Set Forecasting Options

Forecast Approval Options: Critical Choices

Forecast approval options determine the approval process for forecast versions created for a particular financial plan type. Approval options determine whether you can do the following:

- Use workflow and notifications for approvals
- Automatically approve forecast versions
- Automatically submit forecasts for approval when creating baseline budgets

Using Workflow for Status Changes

Select this option if you want to use Business Process Execution Language (BPEL) workflows and notifications for forecast approvals. Workflows enable you to define a chain of approvers for moving forecasts from the working to the approved status.

Automatically Approving Forecasts

If you don't use workflow for forecast approvals, then you can select to approve forecast versions directly. The automatically approve forecasts option applies even if you aren't entitled to approve forecasts.

Tip: Use this option to enable automatic approval for certain financial plan types while controlling the forecast approval entitlement for others.

For example, disable this option for primary forecast financial plan types to ensure that only entitled users approve corresponding versions. Enable the option for other financial plan types that don't require explicit approval, for example, those whose versions are used for what-if analysis.

Note: The automatic approval option applies only when manually approving forecasts. To approve forecasts versions that are generated automatically when publishing progress, you must be entitled to approve forecasts.

Automatically Submitting Forecast for Approval

Automatic submission for approval applies only to primary forecasts. If you select this option, the current working primary forecast version is submitted for approval when you create a baseline for an approved budget version for a project.

Note: If you select to automatically approve forecasts, the newly created working version of the primary forecast is directly approved.

The option to automatically submit forecasts for approval doesn't apply when manually creating forecasts.

Related Topics

- Budget and Forecast Workflow: Explained

Manage Project Plan Types: Set Project Plan Options

Task and Assignment Date Settings: How They Work Together

Task and task assignment date options are selected when specifying project planning options. Task and assignment date settings interact to determine how planned and transaction dates are set for tasks and how dates are set for task assignments.

Rolling Up Planned Dates for Tasks

You can select to roll planned dates for lowest-level subtasks up the task hierarchy. In this case, planned dates for summary tasks, top tasks, and the project are not editable. Edit planned dates for lowest-level tasks as required. Updated dates roll up the hierarchy to ensure that planned dates at the summary and project level are equal to the earliest start date and the latest end date of lower-level tasks.

Conversely, if you select not to roll up planned dates, lowest-level subtask dates are editable but must be within the planned date range for summary tasks and the project. You can also edit project or summary task dates as required.

Synchronizing Task Transaction Dates with Planned Dates

If you select to synchronize transaction dates with planned dates, then task transaction dates are not editable. Transaction dates always match task planned dates, plus or minus the number of days specified as a date adjustment buffer.

> **Tip:** Specify a positive buffer value to indicate the number of days before the planned start date and the number of days after the planned finish date that a transaction can be charged to a task. Conversely, specify a negative buffer value to indicate the number of days after the planned start date and the number of days before the planned finish date that a transaction can be charged to a task. In other words, when specifying a negative buffer, transaction dates are within the range of the planned dates.

If you select not to synchronize transaction dates with planned dates, then transaction dates are blank by default and can be edited as required. Transaction dates entered at the summary-task level are used as the default transaction dates for tasks at lower levels. Transaction dates specified for subtasks must be within the transaction dates for the summary task. If none of the summary tasks in the hierarchy have transaction dates, then the new transaction date must be within the project date range.

You can modify the date synchronization option until you charge transactions to a task. Implications of changing between options are as follows:

- Deselected to selected: Existing transaction dates are replaced with dates calculated based on task planned dates plus or minus the date adjustment buffer.
- Selected to deselected: Existing transaction dates can be edited. New tasks have blank transaction dates that are editable. Existing transaction dates outside the project dates are cleared.

Setting Task Assignment Dates Using Planned Dates for Tasks

If you select to base task assignment dates on task planned dates, task assignments span the entire task duration. Task assignment dates are not editable.

> **Note:** You can override this option for individual task assignments.

Project Date Cascade Options: Explained

Use the **Cascade option** choice list to determine whether your changes to project dates cascade to tasks.

Use the Basic Information region on the Edit Project Template page to select one of the following options:

- Do not cascade project date changes to tasks: Both start and finish dates are editable. However, you must ensure the following:
  - The project start date is not later than the earliest task date.
  - The project finish date is not earlier than the latest task date.
- Cascade project start date change to affected tasks: You can edit only the project start date.
- Cascade project finish date change to affected tasks: You can edit only the project finish date.

Do not cascade project date changes to tasks is the default value. You must select the cascade option each time you change the project dates, as your selection isn't saved for future date changes.

If you select to roll up planned dates for tasks or are using an external application for scheduling, then you can't modify the project start or finish dates.

Cascading Changes to Transaction Dates

If you selected to synchronize transaction dates with planned dates, then transaction dates are updated automatically when date changes cascade to tasks.

> **Note:** If transactions are already charged to a task, ensure that the existing transaction dates on the task lie within the new transaction dates.

Cascading Changes to Assignment Dates

If you selected to synchronize task assignment dates with task dates, then your changes to project dates will cascade to assignments automatically. Otherwise, you must ensure that all task assignment dates are within the range of the new task dates.

FAQs for Manage Financial and Project Plan Types

What happens if I edit a financial or project plan type after using it on a project?

Once you associate a project plan type with a project or project template, or create budget or forecast versions using a financial plan type, you can't edit certain financial or project plan setup options. These options include the primary forecast and approved budget designations, use of workflow, and the use of multiple transaction currencies.

Also, changes made to a financial plan type apply only to new financial plan versions. Similarly, there is no impact on existing project associations when you modify a project plan type.

Why can't I select some financial plan types when generating a budget version while setting a baseline for the financial project plan?

As a project manager, when you generate a budget when setting a baseline financial project plan, you can select any active budget financial plan type that's available for budget creation. However, some financial plan types (including the default financial plan type selected in the budget generation options of the project plan type) are unavailable for selection in the following circumstances:

- If your project plan contains costs in multiple planning currencies, then only financial plan types that support planning in multiple transaction currencies are available.
- If you already selected an approved cost or revenue budget financial plan type for creating a budget version, then no other approved budget financial plan types are available.

How can I enable budgetary control and encumbrance accounting for my transactions?

Use the **Manage Budgetary Control** or **Manage Encumbrance Accounting** task from the **Setup and Maintenance** work area to enable budgetary control and encumbrance accounting for your ledger and business unit. These tasks also allow you to enable budgetary control and encumbrance accounting for procure-to-pay business functions such as, requisitioning, procurement, and so on. Additionally, for project accounting business functions, you can exclude specific transaction sources and documents from budgetary control.

The project accounting business function requires that you enable budgetary control for a business unit before enabling encumbrance accounting.

Why can't I enable budgetary control on a financial plan type?

Certain conditions must exist for you to enable the budgetary controls option on a financial plan type. You can enable budgetary controls if:

- Budgetary control is enabled for the Project Accounting Business Function. Manage this option in the Manage Budgetary Control task of the Setup and Maintenance work area.
- The financial plan type isn't enabled for multiple transaction currencies.
- The plan class is Budget.
- The planning amounts contain a cost component.

> **Note:** The option to enable budgetary controls isn't present on the financial plan type if the planning amounts are for revenue only.

Can I create a version of a financial plan type before I run summarization?

Yes.

FAQs for Set Financial Plan Options

What's an approved budget?

You can designate budget financial plan types as approved cost budgets, approved revenue budgets, or both. You use versions of such financial plan types for plan comparison when reviewing budgets or forecasts. Approved budget versions are also used by default when reporting on project performance.

For each project, you can use only one financial plan type that is designated as an approved cost budget or an approved revenue budget. Either select separate financial plan types (one approved cost budget and one approved revenue budget) or a single financial plan type with both designations.

What's a primary forecast?

You can designate forecast financial plan types as primary cost forecasts, primary revenue forecasts, or both. You use versions of such financial plan types for plan comparison when reviewing budgets or forecasts. Primary forecast versions are also used by default when reporting on project performance.

For each project, you can use only one financial plan type that is designated as a primary cost forecast or a primary revenue forecast. Either select separate financial plan types (one primary cost forecast and one primary revenue forecast) or a single financial plan type with both designations.

FAQs for Set Project Plan Options

What happens if I use Microsoft Project as a third-party scheduling application?

Your ability to modify project and task dates in Oracle Fusion Project Foundation is limited in several ways. The limitations are:

- You can't modify the start and finish dates for the project and existing tasks.
- You can enter start and finish date for new tasks, however these dates must be within the planned dates for the summary task.
- You can modify transaction dates, however they must be within both the task planned dates and transaction dates for the summary task or project.

What's a baseline financial project plan?

Key planned information for tasks and task assignments, including dates, costs, quantity, effort, and rates, that you can save from current financial project plan values. Setting a baseline for a project plan doesn't create a new plan version. Rather, current plan information is saved in baseline columns of the current project plan.

As a project manager, you must set a baseline for your project plan before capturing progress. To set a baseline, you can use the Manage Financial Project Plan page. Baseline amounts determine earned value for lowest-level tasks, which in turn are used to roll up physical percent complete to summary tasks.

You can't delete baseline data, and baseline data doesn't change unless you override it when you next set a baseline for the tasks.

Tip: By generating a budget version when you set a baseline for your project plan, you can maintain an historical record of past baseline data.

27 Microsoft Project Integration: Overview

Microsoft Project and Project Financial Management Applications: How They Work Together

Microsoft Project integration enables project managers to create projects, complete in-depth scheduling using dependencies and constraints, and perform what-if analysis offline before synchronizing project plan and progress information with Project Financial Management applications in Oracle Fusion Project Portfolio Management.

Project executives, project accountants, and billing specialists can use the information exported to Oracle Fusion Project Portfolio Management for financial planning, project costing, billing and revenue accrual, and performance reporting.

The integration of Microsoft Project versions 2007, 2010, 2013, and 2016 with Project Financial Management applications lets you to do the following:

- Import templates or existing projects from Project Financial Management applications to create projects in Microsoft Project.
- Export projects from Microsoft Project to create projects in Project Financial Management applications.
- Synchronize existing projects with Project Financial Management applications.

  Note: If Oracle Fusion Project Management is implemented, the synchronization option is not available.

- Import resources from the primary planning resource breakdown structure to use for creating task assignments in Microsoft Project.
- Plan and schedule projects, assign resources, and track progress.
- Import planned quantities and costs into Microsoft Project for progress collection.
- Export project plan and progress information to Project Financial Management applications.

Installing the Microsoft Project Integration Client

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

Before downloading the client, ensure that you have .NET Framework 4.5.2 or later versions installed on your computer. The following table provides the list of available clients and their features.

Client for Project Financial Management Applications	Supported Features
Microsoft Project 2007	Scheduling only.
Microsoft Project 2010, 2013, and 2016	Scheduling along with support of manual tasks, inactive tasks, free text, and so on.

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 the Microsoft Project Integration client for Project Financial Management applications:

1. From the Navigator, open Project Financial Management.
2. From the My Projects page, open the Actions panel tab and select Install Microsoft Project Integration to download the required client.
3. Save the client, extract the installation files to a local folder, and run the installation file from that folder.
4. From the Oracle Fusion Projects menu, select **Change Environment** and enter the Project Financial Management environment details. The URL must contain the string projectsFinancials. For example, https://msp-prj.vision.com/projectsFinancials.

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

Importing Projects

You can import a template or an existing project from Project Financial Management applications to create a new project file in Microsoft Project. During import, select to import all project information or only planning resources. If you want to subsequently export new task assignments for the project to Project Financial Management applications, you must import resources from the primary planning resource breakdown structure.

Note: While importing templates from Project Financial Management applications, you can't select a template that allows changes to the primary planning resource breakdown structure at the project level. This restriction doesn't apply when importing projects.

When importing an existing project, retain the link if you intend to synchronize the project. If you only want to view project details, or intend to export the project to Project Financial Management applications as a different project later, then don't retain the project link. The retain link is not available if Oracle Fusion Project Management is implemented and you can't retain the project link if third-party scheduling is disabled for the project.

Importing Resources and Rates

You can import all planning resources from the primary planning resource breakdown structure associated with the project in Project Financial Management applications or import selected resources only.

Import rates from Project Financial Management applications to calculate planned costs in Microsoft Project. The **Cost Type** synchronization option determines whether raw cost rates or burdened cost rates are imported.

Before import, rates are derived for each resource based on the actual or planning rate schedules specified on the associated project plan type. Any override rates you specify on the project plan in Oracle Fusion Project Portfolio Management aren't imported.

Importing Actual Costs and Exporting Progress

You can import actual quantity and costs either from the latest summarized data or from draft progress. The source of actual amounts determines how progress is exported, as described in the following table.

Source of Actual Amounts	Impact on Exporting Progress
Latest summarized data	Actual amounts on the draft progress are refreshed from the latest summarized data when you export progress. Also, you specify the progress as-of date in the synchronization options.
Draft progress	Actual amounts on the draft progress aren't refreshed and hence, they match the actual amounts previously imported into Microsoft Project.

When you export progress from Microsoft Project, the estimate-to-complete (ETC) method and physical percent complete calculation method are set to Manual. Values for planned, actual, and estimated finish dates and physical percent complete are exported at each level in the task hierarchy and don't roll up in Project Financial Management applications. Values for all other attributes are transferred at the task assignment level and roll up in Project Financial Management applications.

After export, draft progress is published. A forecast version is generated depending on progress settings defined for the associated project plan type. You can export progress with raw cost if burdening isn't enabled on the project type. If burdening is enabled, then you must use burdened cost to export progress. To achieve this, set the **Cost Type** synchronization option to **Burdened cost**.

Exporting Projects from Microsoft Project

You can export a project from Microsoft Project to create a new project in Project Financial Management applications. Exporting links the projects in the two applications. Optionally, set a baseline for the project plan, and simultaneously generate a budget version and create a baseline.

When exporting a project, you must select a source project or template unless you had originally imported a project or template from Project Financial Management applications. The source project or template must allow for third-party scheduling and the associated primary planning resource breakdown structure must not allow changes at the project level.

When exporting projects to Project Financial Management applications, Microsoft Project 2010 or later versions export the tasks based on various conditions as given in the following table.

Tasks	Condition
Inactive tasks	Doesn't export.
Manual tasks	Exports only if the manual tasks have valid dates and duration.
Manual summary tasks	Exports only if the schedule mode of all summary tasks is automatic. This is because the roll up doesn't happen in Project Financial Management applications.

Synchronizing Project Information

Use synchronization rules to transfer information from and to Microsoft Project. Select the required synchronization rule to synchronize all information, or import or export selected information only. For example, you can select to only synchronize schedule updates for the project. Depending on the synchronization rule, select synchronization options to determine how information is transferred. Also, ensure that you save the changes in Microsoft Project after synchronizing projects to avoid losing your data.

The following table describes the default direction in which attributes are transferred.

Attributes	Imported into Microsoft Project	Exported from Microsoft Project
Task structure	Yes	Yes
Resources and resource rates	Yes	No
Task attributes	Yes	Yes
Actual quantities and costs	Yes	No
Scheduling and progress	No	Yes

Import Options while Synchronizing Projects

Microsoft Project schedules tasks differently from the Project Financial Management applications. For example, Microsoft Project considers resource availability and tasks dependencies while the Project Financial Management applications don't.

Microsoft Project uses three key attributes to schedule tasks: work, dates, and units. A change to one attribute must be offset by a change to one of the other two attributes. Because Microsoft Projects schedules tasks differently, you can't import work and dates for new task assignments and still have the assignment units as 100%. When you import, you must select which of the three values you want Microsoft Project to calculate and the remaining two values are imported.

For example, assume you import a new task assignment with the following attributes:

- Work:: 16 hours
- Start date: 03-AUG-15
- Finish date: 03-AUG-15

The new task assignment will be imported as follows based on the option selected during synchronization:

Option	Example Calculation
Calculate Dates	With the start date as 03-Aug-15, the work as 16 hours, and the units as 100%, Microsoft Project calculates the finish date as 04-Aug-15.
Calculate Work	With the start date as 03-Aug-15, the finish date as 03-Aug-15, and the units as 100%, Microsoft Project calculates the work as 8 hours.
Calculate Units in Microsoft Project 2007 or Peak in Microsoft Project 2010 or later	With the start date as 03-Aug-15, the finish date as 03-Aug-15, and the work as 16 hours, Microsoft Project calculates the units or Peak as 200%.

28 Project Costing Configuration: Define General Costing Setup

Manage Project Transaction Sources

Transaction Sources: Explained

Transaction sources identify the source of transactions that you import into Oracle Fusion Project Costing. You control the transaction import and processing by specifying the source, document, and document entry options.

The transaction sources can be classified into two categories:

- Predefined sources
- Third-party application sources

Predefined Sources

Oracle Fusion Project Costing provides a set of predefined transaction sources that you can use to import transactions from other Oracle Fusion applications. The predefined sources and their associated document entries are as follows:

Predefined Source	Document Entry
Oracle Fusion Payables	• Supplier cost • Expense report • Intercompany invoice • Interproject invoice
Oracle Fusion Project Financial Management	• Time card • Usage expenditure • Miscellaneous expenditure • Inventory expenditure • Burden expenditure • Summarized burden expenditure • Work-in-progress expenditure • Capital interest expenditure • Allocation expenditure
Oracle Fusion Cost Management	• Purchase receipt • Miscellaneous inventory cost
Oracle Fusion Purchasing	• Purchase requisition committed cost • Purchase order commitment cost

Third-Party Application Sources

You can define additional transaction sources to import transactions from non-Oracle applications. For example, you can define the transaction source Payroll to identify expenditure items imported from an external payroll system. Similarly, you can create documents for a specific transaction source and document entries for a specific document.

Source, Document, and Document Entry Components: How They Work Together

When you create a transaction source, you select the transaction source options to control the transaction import processing. Transaction source, document, and document entry definitions determine how the application handles validation, import, processing, adjustment, and accounting of project cost transactions.

The following figure provides an example of a transaction source called Oracle Fusion Payables, associated documents called Supplier Invoice and Expense Report, and their document entries such as Invoice Price Variance, Exchange Rate Variance, Freight, Item Cost, and Nonrecoverable Tax.

Sources

At the transaction source level, you define the source and the processing set size. When transferring large number of transactions, you can reduce the impact of unexpected errors by processing transactions in sets. Define the set size by providing a value for the processing set size.

Documents

Documents represent the transactions that are imported to Oracle Fusion Project Costing. They are associated to a source. You specify the import and accounting options for transactions. Some of the options are interdependent.

- If the document entry is associated with the expenditure type class, Supplier Invoice or Expense Report, you cannot deselect the Accounted in Source Application and Import raw cost amounts options.
- If the document entry is associated with the expenditure type class, Burden Transactions, you cannot deselect the Import raw cost amounts or Import burdened amounts options.
- You can select the Import burdened amounts option only when the Import raw cost amounts option is selected.
- You can select the Create raw cost accounting journal entries option, if the Accounted in Source Application option is set to **No**.
- You cannot create a document for predefined transaction sources.

Document Entries

Document entries are a further breakdown of the document. They represent different types of transactions that come under a single, specific document. For the Burden Transactions expenditure type class, you specify the Import raw cost amounts and Import burdened amounts options at the document level; however, you cannot specify the Allow adjustments and Allow reversals options at the document entry level. Therefore, to allow adjustments and reversals, you either change the document options or select a different expenditure type class. You can define the following document entry options:

- Allow interface modifications: After importing the transactions, you can edit the unprocessed transactions.
- Cross-charge transaction processing: You can allow cross-charge transactions processing.

Related Topics

- Document and Document Entry Edit Options of Predefined and Third-Party Sources: Explained

Setting Up Transaction Sources: Points to Consider

Transaction sources identify the source of external transactions and determine how you import them into Project Financial Management.

Consider the following aspects when you set up transaction sources:

- Transaction Source Options
- Document Options
- Document Entry Options
- Predefined Transaction Sources

Transaction Source Options

You specify the following option when setting up transaction sources.

Option	Description
Processing Set Size	Number of records processed in each set. When processing a large amount of data, reduce the impact of unexpected errors by processing transactions in sets. The import process saves information to the database after each set is complete. If an error occurs and a roll back is issued, only transactions in the current set are affected.

Option	Description

Document Options

You specify the following options when setting up transaction source documents.

Option	Description
Commitment Source	Identifies if the document is used for importing commitment transactions.
Commitment Type	Identifies type of the commitment transaction that you can import using the document. Possible values are: • Purchase order • Purchase requisition • Supplier invoice • Any other commitment transaction
Import Raw Cost Amounts	Imports transactions with the raw costs already calculated. The amount remains the same after you import the transaction. Designating an imported transaction as costed doesn't affect burdening or accounting. If Burden Transaction is the expenditure type class for one or more document entries, you can't disable the Import Raw Cost Amounts option for the document. If the Commitment Source option is activated, then the Import Raw Cost Amounts option is available, but not available for editing.
Import Burdened Amounts	Imports burdened costs for transactions. If selected, transactions without a burdened cost amount are rejected. When you select this option, the Import Raw Cost Amounts option is automatically selected. If Burden Transaction is the expenditure type class for one or more document entries, you can't disable the Import Burden Amounts option for the document.
Allow Duplicate Reference	Allows the document to have multiple transactions with the same original application reference. If you select this option, then you can't uniquely identify the item by source, document, or original application reference.
Revalidate During Import	Select this option to revalidate cost transactions that you import from other Oracle Fusion applications. This option is available for all the documents for the following predefined sources: • Oracle Fusion Payables • Oracle Fusion Cost Management • Oracle Fusion Time and Labor For example, time cards are validated according to business rules when you create them in Oracle Fusion Time and Labor. However, when this option is enabled, these time cards are rejected during import if the project is closed.

You can't edit the following options for commitment document if you activate the Commitment Source option.

Option	Description
Allow Override of Person Organization	Allows the external application to provide an expenditure organization that is different from the owning organization of the person. If no expenditure organization is provided, the import process considers the owning organization of the person as the expenditure organization.
Reconcile with Source	Reconciles transactions between the document and the source application.
Archive After Import	Automatically archives successfully imported transactions when the import process completes.
Accounted in Source Application	Controls the accounts that are imported and the fields that are required from the transaction source application.
Create Raw Cost Accounting Journal Entries	Transfers cost accounting journals for the raw cost to the general ledger. Settings on the project type determine whether accounting journal entries for the burden cost and burdened cost are sent to the general ledger.
Create Adjustment Accounting Journal Entries	Transfers adjustments to the general ledger.

Document Entry Options

You specify the following option when setting up transaction source document entries.

Option	Description
Expenditure Type Class	Expenditure type class used for the document entry. If the document is a commitment document, then the expenditure type class is set to Supplier Invoice and you can't edit the expenditure type class.

You can't edit the following options if the document is a commitment document.

Option	Description
Allow Adjustments	Allows adjustments to imported transactions in Project Financial Management after import. If Burden Transaction is the expenditure type class, you can't disable the Allow Adjustments option.
Allow Reversals	Allow reversals of expenditure batches or expenditure items for the document entry. To manage reversals between the external application and Project Financial Management: • Create reversals in the external application. • Import the raw costs. This process creates reversal entries in Project Financial Management. If Burden Transaction is the expenditure type class, you can't select the Allow Reversals option.
Allow Interface Modifications	Allows modifications to rejected transactions after the import process is completed. Allows modifications to pending transactions after they are loaded to the interface table and before the import process is submitted.

Option	Description
Process Cross-Charge Transactions	If you select this option for a document entry, Project Financial Management performs cross-charge processing for transactions that originate from the source, document, and document entry.

Predefined Transaction Sources

Project Financial Management provides a set of predefined transaction sources that you use to import transactions from other Oracle Fusion applications. In addition, Project Financial Management uses predefined transaction sources to import the following:

- Project allocations
- Capitalized interest transactions
- Summarized burden transactions generated internally

You can define additional transaction sources to import transactions from third-party applications. For example, you can define the transaction source Payroll to identify expenditure items imported from an external payroll application. You control the transaction import processing by the options that you select for each transaction source.

Predefined transaction sources exist for the following Oracle Fusion applications:

- Payables
- Cost Management
- Projects
- Purchasing
- Time and Labor

Transaction Document Import and Accounting Options: Points to Consider

Specify the import and accounting options in the transaction document to define the way in which cost transactions are imported and processed.

Transaction Import Options

The import options that you define for documents impact how the application imports transactions for that document. You specify the following import options for each document:

Import Options	Description
Import raw cost amounts	Select this option to import raw cost amounts on transactions from this document.
Import burdened cost amounts	Select this option to import burdened cost amounts on transactions from this document.
Allow duplicate reference	Select this option to allow the same original application reference for transactions from this document.

Import Options	Description
Allow override of person organization	Select this option to override the primary human resources assignment organization of the person on transactions from this document.
Reconcile with source	Select this option to reconcile transactions associated to this document in the source application.
Archive after import	Select this option to archive transactions from this document after importing them successfully.
Revalidate during import	Select this option to revalidate cost transactions that you import from this document. This option is available for all the documents for the following predefined sources: • Oracle Fusion Payables • Oracle Fusion Cost Management • Oracle Fusion Time and Labor

Transaction Accounting Options

The accounting options that you define for documents impact how the application accounts transactions for that document. You specify the following accounting options for each document:

Accounting Options	Description
Accounted in source application	Select this option to specify that cost transactions can be accounted in the source application. That is, you can account for raw, burden, or burdened costs externally. If the raw cost, burden, or burdened cost is accounted in the source, then the respective general ledger accounts are required to import the transactions successfully.
Create raw cost accounting journal entries	Select this option to create raw cost accounting journal entries on transactions.
Create adjustment accounting journal entries	Select this option to create adjustment accounting journals entries on transactions.

Related Topics

- Document and Document Entry Edit Options of Predefined and Third-Party Sources: Explained

Document and Document Entry Edit Options of Predefined and Third-Party Sources: Explained

You can define the transaction document and document entry options for transactions that originate from predefined sources and third-party application sources. However, there is a limitation in editing these options. The options that you can edit for each source depend on whether the document entry is predefined for use with Oracle Fusion Applications or defined during implementation for use with third-party application sources.

Document Edit Options

The following table provides a list of document options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Options	Predefined Sources	Third-Party Application Sources
Import raw cost amounts	Not editable	Not editable
Import burdened cost amounts	Not editable	Not editable
Allow duplicate reference	Not editable	Not editable
Allow override of person organization	Not editable	Not editable
Reconcile with source	Not editable	Editable
Archive after import	Editable	Editable
Revalidate during import	Editable	Not editable
Accounted in source application	Not editable	Not editable
Create raw cost accounting journal entries	Not editable	Not editable
Create adjustment accounting journal entries	Editable	Editable

Document Entry Edit Options

The following table provides a list of document entry options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Entry Options	Predefined Sources	Third-Party Application Sources
Expenditure type class	Not editable	Not editable
Allow adjustments	Editable	Editable
Allow reversals	Not editable	Editable
Allow interface modifications	Not editable	Editable
Process cross-charge transactions	Editable	Editable

Document Entry Options	Predefined Sources	Third-Party Application Sources
Create related items	Editable	Editable

FAQs for Manage Project Transaction Sources

Can I assign a document to multiple sources?

You can have a document with the same name in multiple sources but you can't share documents across sources. For example, a corporation with multiple time capture systems can associate a time card document with Oracle Fusion Project Financial Management and a non-Oracle application as sources. The rules on how these transactions are treated differ based on how they're processed in the source applications.

Can I create documents and document entries for predefined transaction sources?

No. You can create documents and document entries only for third-party transaction sources.

Can I delete transaction sources, documents, and document entries?

You can delete third-party transaction sources, documents, and document entries only if no cost transactions exist for them. However, you can't delete the predefined transaction sources, documents, or document entries.

Can I allow adjustments and reversals for all transactions in a document entry?

No. You decide whether to allow transaction adjustments and reversals for each document entry that you create during implementation. However, you can't define document entries to allow adjustments and reversals for transactions that are generated by the application, such as allocation transactions, capital interest expenditure transactions, or summarized burden transactions.

You can't cancel an adjustment performed on an expenditure item for which funds are already reserved against a control budget.

Can I change the source and document for transactions after exporting them to Oracle Fusion Project Costing?

No. You can't change the source, document, or document entry after exporting a transaction to Project Costing.

29 Project Costing Configuration: Define Capital Projects

Asset Cost Allocation Methods: Explained

The asset cost allocation method determines how indirect or common costs incurred on a project are allocated to multiple assets.

You can specify an asset cost allocation method to enable Oracle Fusion Project Costing to automatically allocate unassigned asset lines and common costs across multiple assets. Unassigned asset lines typically occur when more than one asset is assigned to an asset grouping level.

Projects and project templates inherit a default asset cost allocation method from the associated project type. You can override the default at the project level. If you use capital events to allocate costs, then you can also override the asset cost allocation method at the event level.

Asset Cost Allocation Methods

The following table describes the available asset cost allocation methods.

Method	Basis of Cost Allocation
Actual Units	Number of units defined for each asset
Current Cost	Construction-in-process (CIP) cost of each asset
Estimated Cost	Estimated cost of each asset
Standard Unit Cost	Combination of the standard unit cost and the number of units defined for each asset
Spread Evenly	Equal allocation of cost to each asset

FAQs for Define Capital Projects

What's a standard unit cost method?

Standard unit cost method is one of the asset cost allocation methods that is used to allocate common and indirect costs to different assets. For example, you can allocate amounts such as salaries, administrative overhead, and equipment charges across several assets.

A standard unit cost is defined for an asset book and asset category combination. When you use this method, Oracle Fusion Projects multiplies the standard unit cost times the actual units based on the asset book and asset category of each asset and it determines the proration basis for allocating costs. Optionally, you can override the asset cost allocation method when defining capital events.

Can I designate cost of removal and proceeds of sale amounts when processing retirement costs?

Yes. When capturing retirement costs in a capital project, enter proceeds of sale amounts using expenditure types specifically created for that purpose. Oracle Fusion Project Costing automatically classifies amounts for all other expenditure types associated with the retirement cost task as cost of removal.

Define Capitalized Interest

Capitalized Interest Setup: Explained

To set up capitalized interest, you must specify the following capitalized interest options to calculate and capitalize interest on construction-in-progress costs.

- Capitalized Interest Rate: Define thresholds when projects or tasks become eligible for interest calculation and selecting the basis attributes used to calculate interest amounts.
- Capitalized Interest Rate Schedules: Create capitalized interest rate schedules with multipliers for organization and interest rate combinations to calculate capitalized interest.
- Capitalized Interest Rate Schedules for Project Types: Review and update project types to specify the default rate schedule for a capital project type. The rate schedule that you specify for a project type is the default rate schedule for all projects that you create for this project type. You can specify to override the default rate schedule at the project level.
- Capitalized Interest Generation on Project Status Controls: Use project status controls to determine the capitalized interest calculation through the various stages of a project. You must determine the project statuses for which you want to allow the calculation of capitalized interest and update project status controls accordingly. You can review the statuses at a later stage and modify them as required.

Related Topics

- Capitalized Interest Rate Attributes: How They Work Together

Capitalized Interest Rate Schedule Components: How They Work Together

Capitalized interest rate schedules help you maintain the interest rates at the organization level. If the capitalized interest rate is not defined for the organization, the application automatically uses the next higher-level organization in the organization hierarchy.

Capitalized Interest Rate Schedule Components

The following components work together to define a schedule for capitalized interest rates. Provide the rate schedule attributes and then build new multipliers for the version to take effect. You can assign the interest rate schedule to a project type and allow the override of the assigned capitalized interest rate schedule at the project level.

Rate Schedule Components	Description
Default Organization Hierarchy	Organization hierarchy to assign rates to organizations. If there is no rate for an organization, the capitalized interest calculation uses the rate for the next higher-level organization in the organization hierarchy.
Hierarchy Version	The default version of the organization hierarchy to be applied to the schedule.
Hierarchy Start Organization	Start organization to indicate which branch of the organization hierarchy is used as the top of the hierarchy for assigning capitalized interest rates to organizations.
Hold from Build	Select this option to prevent the rate schedule version from being built, if version is not yet ready for the build.
Rate Multipliers	Specify rate multiplier for an organization and capitalized interest rate combination. Optionally, copy multipliers from other schedule version to this version and use it.

To delete an interest rate schedule, you must build the schedule and then delete it.

Related Topics

- Capitalized Interest Rate Attributes: How They Work Together

Setting Up Capital Projects for Calculating Capitalized Interest: Points to Consider

To correctly calculate capitalized interest, ensure that correct capitalization options are defined at the project type, project template, and project levels. At the project level, verify the following:

- The project allows capitalized interest calculation
- The appropriate capital interest rate schedule and capitalized interest stop date are specified

Allowing Capitalized Interest for a Project

Indicate whether the project is eligible for capitalized interest. By default, this option is enabled for all capital projects. However, you can update the option as required.

Selecting a Capital Interest Schedule and Capital Interest Stop Date

Capitalized interest rate schedules define rates of interest calculation for organizations. The default interest schedule is inherited from the project type. You can override it if the project type allows schedule changes at the project level.

Related Topics

- Asset Cost Allocation Methods: Explained

FAQs for Define Capitalized Interest

What's a capital interest stop date?

Date that determines the accounting period up to which capital interest is calculated for a project or task.

For example, assume the stop date for your project is December 27, 2010 and your accounting periods are weekly. That is, the stop date falls in the fourth period of December. In such a case, capital interest is calculated only up to the third period in December 2010.

30 Project Costing Configuration: Define Borrowed and Lent Accounting

Define Borrowed and Lent Business Unit Options

Project Business Unit Cross-Charge Options: Critical Choices

Oracle Fusion Projects provides two methods to process cross-charge transactions.

- Borrowed and Lent Accounting: Creates accounting entries that move an amount equal to the transfer price between the provider and receiver organizations within a legal entity. There is no formal internal invoice created with this method. Costs or revenue are shared based on transfer price rules.

  Use the Borrowed and Lent processing method to apply cross-charge transactions within a business unit or between business units.
- Intercompany Billing: Enables the provider organization to present a formal invoice based on the transfer price to the receiver organization and receive payment for services rendered and materials supplied. You can use this processing method between legal entities.

  You must set up the contract business unit to use the Intercompany Billing processing method.

This section describes the project business unit options for setting up cross-charge transactions for sharing costs and revenue within and between business units in the same legal entity.

Transfer Price Currency Conversion

Select the date type, either transaction date or project accounting date, and rate type that the system uses by default to determine the conversion rate to convert the transfer price amount from the transaction currency to the ledger currency.

Cross-Charge Transactions Within a Legal Entity

The method of creating cross-charge transactions can be different for transactions within a business unit than the method used across business units. You can choose either the Borrowed and Lent Processing method of creating cross-charge transactions, or specify that no cross-charge transactions will be created.

The processing method that you specify for cross-charge transactions between business units is the default method used between the provider business unit and any other receiver business unit. You can override the default processing method for specific receiver business units.

> **Note:** If you delete the override of the default processing method for a specific receiver business unit, you must manually adjust transactions to reflect the deleted controls.

Prerequisites for Setting Up Business Unit Options for Cross-Charge Transactions: Explained

Before you can set up the cross-charge options during business unit implementation to enable cross-charge transactions within a business unit and between business units, you must complete prerequisite setup steps.

Prerequisites for Creating Cross-Charge Transactions

You must define the following objects before you can create cross-charge transactions.

- Legal entities, including setting up accounting and associating the balancing segment values to the legal entity.
- Business units with the project accounting business function.
- Organizations and organization hierarchies that share resources.

> **Note:** If you use organization hierarchies, the application uses the project expenditure organization hierarchy, and the project and task owning organization hierarchy, to determine the transfer price defined for the provider organization and receiver organization combination.

Prerequisites for Borrowed and Lent Processing Method

You can implement the Borrowed and Lent processing method of creating cross-charge transactions after defining the following objects.

- Transfer price rule and schedule
- Either a rate schedule or burden schedule, based on the transfer price rule

Prerequisites for Intercompany Billing Processing Method

For the Intercompany Billing processing method of creating cross-charge transactions, set up at least one of the following schedules.

- Rate schedule
- Burden schedule
- Transfer price rule and schedule

FAQs for Define Borrowed and Lent Business Unit Options

What's the difference between intercompany billing and interproject billing?

Intercompany billing creates internal invoices and accounting entries to pass costs and share revenue across organizations on an intercompany billing contract. A provider organization performs work and charges it a project owned by the receiver organization. The provider organization creates an invoice in Oracle Fusion Receivables and the receiver organization imports the invoice from Oracle Fusion Payables. Accounting entries for revenue are created between the organizations.

Interproject billing creates internal invoices for costs incurred between a provider project and a receiver project defined on an interproject billing contract. The provider project generates an Oracle Fusion Receivables invoice, which the receiver project receives as an Oracle Payables invoice.

31 Project Costing Configuration: Define Project Costing Integrations

Oracle Fusion Project Costing Integration with Oracle Fusion Applications: How They Work Together

Oracle Fusion Project Costing fully integrates with Oracle Fusion Purchasing, Oracle Fusion Self Service Procurement, Oracle Fusion Receipt Accounting, Oracle Fusion Expenses, Oracle Fusion Payables, Oracle Fusion Inventory Management, and Oracle Fusion Cost Management and enables you to capture and transfer project-related transactions. For example when you purchase goods, the project information is carried from the requisition to purchase orders to supplier invoices to finally project expenditure items.

Oracle Fusion Project Costing also integrates with Oracle Fusion Assets to capture capital assets and retirement adjustment costs. Oracle Fusion Project Costing fully integrates with Oracle Fusion Subledger Accounting so that you can create accounting for your project-related transactions.

Implementing Oracle Fusion Payables

Implement Oracle Fusion Payables to enter project-related supplier invoices in Oracle Fusion Payables and to import project-related expense reports from Oracle Fusion Expenses. You use supplier and invoice information in Oracle Fusion Payables to create expenditure items for projects in Oracle Fusion Project Costing.

When the primary accounting method is accrual basis accounting, you transfer invoice distributions and payment discounts as actual costs. When invoices are matched to receipt accrual purchase orders, Oracle Fusion Supply Chain Management transfers invoice variances to Oracle Fusion Project Portfolio Management. For receipt accruals, Oracle Fusion Payables transfers discounts to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Purchasing, Oracle Fusion Self Service Purchasing, Oracle Fusion Receipt Accounting, and Oracle Fusion Cost Management

Implement Oracle Fusion Purchasing and Oracle Fusion Self Service Purchasing to enter project-related requisitions, requests for quotations, and purchase orders, and then report them as outstanding committed costs of requisitions and purchase orders on your projects.

Implement Oracle Fusion Receipt Accounting to create receipts against purchase orders. Thereafter, Oracle Fusion Cost Management transfers project-related receipt accruals as actual supplier costs. When the primary accounting method is accrual basis accounting, you transfer the costs associated with the receipt as actual costs. Oracle Fusion Cost Management transfers the variances for receipt accruals by accumulating the costs from Oracle Fusion Payables and then transfers them to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Inventory Management

Implement Oracle Fusion Inventory Management to order and receive items into inventory before assigning them to a project. You can capture project information for miscellaneous transactions and movement requests as you take items out of or

receive items into Oracle Fusion Inventory Management. When you enter project-related transactions in Oracle Fusion Inventory Management, you enter the project information on the source transaction. Oracle Fusion Cost Management transfers project-related miscellaneous inventory issues and move orders to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Expenses

Employees and contingent workers can enter and submit expense reports. Oracle Fusion Expenses doesn't reimburse employees and contingent workers in the same manner. When you submit an expense report for reimbursement, the reimbursement process creates:

- Payment requests for employees
- Invoices for contingent workers

Oracle Fusion Expenses integrates with Oracle Fusion Payables to provide quick processing of expense reports for payment. You can create project-related expense reports in Oracle Fusion Expenses and transfer to Oracle Fusion Payables and then to Oracle Fusion Project Costing.

Implementing Oracle Fusion Assets

Implement integration with Oracle Fusion Assets to collect construction-in-progress and expense costs in Oracle Fusion Project Costing for each asset you're building. You can then update your fixed asset records when assets are ready to be placed in service or retired. In addition, you can perform retirement cost processing to capture retirement-work-in progress costs associated with the retirement of assets in Oracle Fusion Assets.

Implementing Oracle Fusion Subledger Accounting

Oracle Fusion Subledger Accounting is the single source of all internally derived accounting. Oracle Fusion Project Costing seamlessly integrates with Oracle Fusion Subledger Accounting for accounting costs. After the accounting events are generated in Oracle Fusion Project Portfolio Management, the subledger accounting entries are created and then transferred to the Oracle Fusion General Ledger.

For transactions imported from other Oracle Fusion applications, such as Oracle Fusion Payables, Oracle Fusion Receipt Accounting, and Oracle Fusion Cost Management, you can view accounting entries created in Oracle Fusion Subledger Accounting without navigating to the source application. For transactions imported from non-Oracle applications, you can view the accounts imported into Oracle Fusion Project Costing without navigating to the third-party application.

Capturing Project Costs: Explained

Capture project-related costs from both Oracle Fusion applications and third-party applications and then transfer them to Oracle Fusion Project Costing. You can capture costs manually by creating uncosted, costed, and accounted transactions for third-party application sources in Project Costing.

Transaction Sources

Costs are created in internal and external applications before being processed. The following table lists cost types and the corresponding source applications.

Source Name	Type of Transactions
Oracle Fusion Expenses	Expense Reports Expense report transactions are imported from Oracle Fusion Payables as actual costs to Project Costing.
Oracle Fusion Payables	• Supplier Invoices • Self-Assessed Tax Self-assessed tax transactions from Oracle Fusion Payables are created as payable commitments in Project Costing.
Oracle Fusion Purchasing	• Self-Assessed Tax Self-assessed tax transactions from Oracle Fusion Purchasing are created as PO commitments in Project Costing. • Purchase Orders • Purchase Requisitions Purchase orders and purchase requisitions are available as committed costs for reporting in Project Costing.
Oracle Fusion Receivables	Receipts
Oracle Fusion Inventory	• Miscellaneous Transactions • Movement Requests
Oracle Fusion Cost Management	• Expense-Based Receipts • Inventory Miscellaneous Transactions • Inventory Movement Requests
Oracle Fusion Project Costing	• Costs in Unreleased Expenditure Batches • Adjustment Transactions • Unprocessed Transactions
Third-Party Applications	External Costs imported using desktop Excel integration, web services, or Oracle Cloud interface.

Capture of Costs

Capture various types of costs from internal and external applications, and then transfer them to Project Costing.

The following table shows various sources of transactions and how they are exported to Project Costing.

Source of Cost Transactions	Description
Other Oracle Fusion applications	Enter and process project-related transactions, and then submit the Import Costs process. For example, you enter invoices with project-related distributions in Oracle Fusion Payables, validate, account, and then import them to Project Costing.

Source of Cost Transactions	Description
Third-party applications	Import costs using one of the following: • Desktop Excel integration • Web services • Load data to the interface table in Oracle Cloud You can load data to interface tables using predefined templates and the Load Interface File for Import scheduled process, which are both part of the External Data Integration Services for Oracle Cloud feature. For more information, see the File Based Data Import guide for your cloud services.
Individual third-party transactions created in Oracle Fusion Project Costing	You can create individual transactions with third-party application source directly from the Manage Unprocessed Costs page in Project Costing. For example, this approach works well if you are approaching period close and have to create a few third-party transactions rather than wait to receive the transactions from the third-party application.

Capturing Additional Transaction Attributes

Use the Cost Collection Flexfield to capture product-specific attributes on actual cost and commitment transactions. You can manage naming, validation, and ordering of these attributes within each of the documents that capture them, such as expense reports and purchase orders. You can capture, store, display, search, and report project-related attributes in the transaction source applications.

Related Topics

- Project Costs: How They're Imported
- Desktop Excel Integration Spreadsheets to Enter Project Costs: Explained
- File Based Data Import for Oracle Project Portfolio Management Cloud

Oracle Fusion Time and Labor and Oracle Fusion Project Costing Integration Setup: Explained

Time and Labor managers and administrators, and application implementation consultants can enable employees, contingent workers, and team members to enter project time by creating new objects for them or adding them to existing user groups. They can also restrict the list of visible projects for time entry.

Entering Project and Payroll Time on a Single Time Card

The following table lists the various delivered objects that Time and Labor managers and administrators can use to allow entry of project and payroll time on a single time card.

Object Type	Delivered Object
HCM User Group	Projects and Payroll Usage

Object Type	Delivered Object
Time Entry Profile	Projects and Payroll Time Entry Profile
Time Processing Profile	Projects and Payroll Time Processing Profile
Layout Set	Projects and Payroll Layout Set

Entering Time for Assigned Projects

Time and Labor managers and administrators can use the following objects to enable team members to enter time only for the projects to which they're assigned.

Object Type	Delivered Object
HCM User Group	Projects Usage
Layout Set	Projects Layout Set Filtered by Project Team Members

To enable team members to enter time only for their projects, new time entry and time processing profiles must be created.

Restricting the List of Projects for Time Entry

Time and Labor managers and administrators can restrict the list of visible projects for which resources can enter time.

The list of projects in Time and Labor can be restricted by:

- Team Members: Team members can view and enter time for only those projects that they're assigned to.
- Transaction controls: Only those resources that are added to the project transaction control can view and enter time for the project.

Related Topics

- Enable Team Members to Enter Project Time: Procedure

Deriving Project-Related Accounts for Oracle Fusion Applications: Explained

Account rules specify how the Account Combination is derived on subledger journal entry lines. You can specify the conditions under which a rule becomes applicable. Using this feature, you can develop complex rules for deriving accounts under different circumstances. Accounts imported from third-party applications or the Oracle Application Development Framework Fusion Desktop Integration are available as sources in Oracle Fusion Subledger Accounting.

You can optionally create account rules with your specifications. If you define an account rule for an account combination, then the rule determines each segment of the Accounting flexfield. If you define an account rule for a segment, then the rule determines the value for a single Accounting flexfield segment. You can use both segment and account combination

rules to derive a single account. If you assign both types of account rules to a single journal line definition, then Oracle Fusion Subledger Accounting uses the account segment rules first and then takes the remaining values from the account combination rule.

Deriving Projects-Related Accounts

The only method to derive project-specific accounts is to use project sources in the accounting method. You define account rules to derive project-related accounts for the following Oracle Fusion applications:

- Oracle Fusion Purchasing: Project-specific accounts, such as the purchasing charge account and accrual account, are derived by using transaction account derivation rules
- Oracle Fusion Cost Management: All project-specific accounts are derived during accounting creation in Oracle Fusion Subledger Accounting.
- Oracle Fusion Payables: The project-specific accounts are not derived until the journal entries are created within Oracle Fusion Subledger Accounting. Oracle Fusion Expenses need not derive project-specific accounts because they are derived after the records are transferred to Oracle Fusion Payables.
- Oracle Fusion Receivables: AutoAccounting generates a default account for invoices originating from Oracle Fusion Project Billing. This default account isn't based on the contract. If you need a contract-specific account, you must set up account rules in Oracle Fusion Subledger Accounting to override the default account when the final accounting is performed by Oracle Fusion Receivables.

You must update the account rules to derive project-specific accounting. Create project-specific rules by evaluating the Project Identifier. Derive a project-specific account combination or override a single account segment with a project-specific value. Use more than 100 project-specific sources to create mapping sets and account rule conditions. Examples of these sources include:

- Billable Indicator
- Capitalizable Indicator
- Retirement Indicator
- Project Type
- Expenditure Type
- Expenditure Type Descriptive Flexfield Attribute 1
- Task Descriptive Flexfield Attribute 1

Related Topics

- Account Rules: Explained
- Project Costing Accounts for Budgetary Control: Explained

FAQs for Define Budgetary Control Integration

How can I enable budgetary control and encumbrance accounting for my transactions?

Use the **Manage Budgetary Control** or **Manage Encumbrance Accounting** task from the **Setup and Maintenance** work area to enable budgetary control and encumbrance accounting for your ledger and business unit. These tasks also allow you to enable budgetary control and encumbrance accounting for procure-to-pay business functions such as, requisitioning, procurement, and so on. Additionally, for project accounting business functions, you can exclude specific transaction sources and documents from budgetary control.

The project accounting business function requires that you enable budgetary control for a business unit before enabling encumbrance accounting.

Can I perform budgetary control validation for cross-charge transactions?

The application performs budgetary control validation in context of the transaction ledger and expenditure business unit. If you enable budgetary control for the transaction ledger and business unit, then budgetary control validation is performed against project control budgets if the project control budgets also exist in the same ledger.

FAQs for Define Purchasing Integration

Where do I provide project information for project-related requisitions and supplier invoices?

You enter project information at the distribution line level for project-related requisitions and purchase orders in Oracle Fusion Purchasing, and for project-related supplier invoices in Oracle Fusion Payables. For requisitions, the requisition distribution attributes default from what is specified during the implementation. For purchase orders, the purchase order attributes default from the purchase order line and the purchase order line attributes default from the purchase order header. The distribution level values are used for validation and import.

FAQs for Define Payables Integration

How can I validate distribution sets for projects information?

Oracle Fusion Projects performs validations on Oracle Fusion Payables distribution sets for payables invoices at the time you create the actual distribution set lines. It validates the project and task number during the invoice validation.

Distribution sets are typically used on recurring transactions, and the associated project does not have transaction controls. When you create a distribution set in Oracle Fusion Payables, the distribution set line is not validated against the project

transaction controls in Oracle Fusion Projects because you do not enter an expenditure item date, which is required for transaction control validation. The expenditure item date is not provided because you use the distribution sets for an indefinite period of time.

FAQs for Define Inventory Integration

How can I define bill rates for inventory items?

You can enter cost markups in the nonlabor rate schedule instead of rates for expenditure types that are related to inventory items.

Alternatively, if you enter a bill rate for an expenditure type that relates to inventory items, then the base unit of measure for inventory transactions reported under the expenditure type must be the same as the unit of measure for the expenditure type. If the base unit of measure for an inventory transaction differs from the unit of measure for the expenditure type, the Generate Revenue process reports an error and doesn't process the transaction.

32 Project Billing Configuration: Overview

Define Project Billing Configuration: Overview

In the Define Project Billing Configuration activity, you configure enterprise contracts and project billing components to invoice customers and recognize revenue for project contracts in Project Financial Management.

The following table lists the essential setup tasks in the Define Project Billing Configuration activity:

Name	Description	Type
Define Contracts Configuration for Project Billing	Define and manage setup related to project contracts including contract types and content that can be used consistently across contracts.	Task list
Manage Contract Layout Templates	Create and maintain layout templates used to preview or print contract documents.	Task
Manage Contract Types	Create and maintain contract types to specify properties of different contracts such as the type of permitted contract lines, party roles, contract validation checks, and the contract acceptance and signature requirements.	Task
Specify Customer Contract Management Business Function Properties	Specify and manage currency conversion rules, project billing rules and default values, adoption rules for contract standards and policies, and other contract management functions.	Task
Define Project Contract Parties	Create and maintain parties for use on a contract.	Task list
Define Project Contract Roles	Define the roles for parties and contacts on a contract.	Task list
Define Project Contract Types and Lookups	Define and manage types and lookup values used on contracts, such as contract types, risks, and hold reasons.	Task list
Define Project Contract Business Unit Options	Configure the business unit implementation options used in Oracle Fusion Enterprise Contracts.	Task list
Define General Project Billing Setup	Enable project billing, manage the general project billing setup, and configure the project billing business unit options.	Task list

Name	Description	Type
Define Project Billing Common Reference Objects	Review and manage common objects, for example value sets and messages, that are used by Oracle Fusion Project Billing.	Task list
Manage Project Billing Descriptive Flexfields	Define validation and display properties of descriptive flexfields, which are used to add custom attributes to Oracle Fusion Project Billing.	Task
Manage Project Types: Billing Indicator	Review and update project types to indicate whether the project type is billable.	Task
Manage Work Types: Billing Indicator	Review and update work types to indicate whether the work types are billable.	Task
Manage Billing Cycles	Create billing cycles to control how often and on which dates a project is billed.	Task
Manage Event Types	Configure options used to control how billing events are entered, processed, accounted, and reported. Billing events are used as source transactions, representing milestones or progress, in the generation of invoices and revenue for fixed-price contract lines.	Task
Manage Revenue Methods	Create revenue methods used to recognize revenue.	Task
Manage Invoice Methods	Create invoice methods used to calculate the invoice amount.	Task
Define Project Billing Business Unit Options	Configure the customer contract management business function options used in project billing.	Task list

33 Project Billing Configuration: Define Contracts Configuration for Project Billing

Define Document Sequences

Document Sequences: Explained

You can assign a document sequence number to each business document or business event to uniquely identify it. For example, you can assign a document sequence number to an invoice that gets generated in response to a purchase order. However, you must enable the document sequencing option for that business document or event to start assigning the number. A document sequence number is useful in tracking completed or failed transactions.

You can set up document sequencing in three different modes:

- Automatic
- Manual
- Gapless

Note: Plan your document sequencing carefully before you start applying sequence numbers. Avoid switching to a different mode after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

Automatic Sequencing

Automatic document sequencing assigns a unique number to each document automatically when the document is generated. That unique number is stored in the database. You can set an initial value for the numbering sequence. Thereafter, the numbering is sequential by date and time of creation. If you don't provide an initial value, the application sets the default initial value as 1.

Manual Sequencing

Use the manual sequencing mode to assign a unique number to each document before the document is generated. In manual sequencing, the numeric ordering and completeness of a transaction is not automatically enforced. As a result, users can skip or omit numbers when entering the sequence value. However, each time a user assigns a number, the application validates its uniqueness.

Gapless Sequencing

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. Sequence numbers are not assigned to incomplete or failed documents. As a result, the sequence is maintained for all the successfully generated documents.

Additionally, you can control the gapless document sequencing by enforcing the Transaction Date Validation option. When enabled, this option checks for the transaction date of a particular document and assigns the sequence number accordingly, to chronologically maintain the documents. The sequence numbers and the transaction dates are chronologically correlated to prevent any mismatch of a new document sequence being assigned to an older document or vice versa.

Note: Use this type of sequencing only if necessary because it may affect the performance of the application and slow down transaction processing.

Related Topics

- Modules in Application Taxonomy: Explained

Document Sequence Categories: Explained

A document sequence category is a set of documents that share similar characteristics and that are formed into a logical group. Document sequence categories simplify the task of assigning number sequences to specific documents. Instead of assigning a number to each document, you assign a document sequence to one or more document sequence categories. The document sequence category automatically takes care of numbering the documents.

A document sequence category identifies the database table that stores documents resulting from transactions that your users enter. When you assign a sequence to a category, the sequence numbers the documents that are stored in a particular table. You must create document sequence categories to be able to manage the task of assigning document sequences.

Note: Once a document sequence category is created, you can't change the application, the category code, or the table name. Therefore, carefully consider these details and plan your document sequencing requirement before you begin working with the application.

Once you create a document sequence category, it is available for use under the **Document Sequences: Assignments** section on the Manage Document Sequences page. The **Category** field contains the name of the document sequence category. After you create a document sequence, you can assign it to a document sequence category.

Document Sequences: Points to Consider

Sequencing documents is an important business and legal requirement. Therefore, you must first decide the appropriate document sequence to use for a set of documents. Before you begin, here are a few prerequisites:

- Determine beforehand the mode of document sequencing, because you can't switch to other types once a sequence is in use.
- Note details such as the document sequence and document sequence category, for later reference.
- Identify if there are any restrictions or configuration prerequisites.

Note: Products that implement document sequencing have specifications about its usage. Refer to the corresponding product documentation for specific details and also to determine if there are any restrictions or configuration prerequisites.

Creating and Editing Document Sequences

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. The sequence definition never expires if you don't

provide an end date. Among the several options used in creating and editing document sequences, the following options are functionally more important and therefore must be carefully determined:

- Determinant Type: Select to limit the document sequencing activity to certain documents that belong to a specific business entity, such as Ledger, Tax Registration, and so on.
- **Initial Value**: Enter a value for the first document in your sequence. This field applies only to sequences with automatic or gapless numbering types. Sequence numbers must not be greater than eight digits. If you leave this field blank, the first document is automatically assigned a value of 1. Once a document sequence is defined, you can't change this initial value.

Creating and Editing Document Sequence Categories

Document sequence categories are defined to make it easy to assign document sequence definitions to a group of documents instead of to individual documents. Each document sequence category is mapped to a specific table, where the documents belonging to that category are stored. When specifying the table, you must consider the following points:

- When the sequential numbering feature checks for completeness or generates a report, it locates the category's documents in the table.
- Select only those tables that belong to the application associated with the category.
- Once a category is defined, you can't switch to another table.

Assigning Document Sequences

Identify the documents to be numbered before assigning them a document sequence. For each document sequence, there can be only one active assignment to a document sequence category, and a determinant value (if applicable). As part of the assignment, specify whether the document is created automatically (for example, due to a batch process, or manually through a form). If you don't specify an end date, the assignment continues to remain active throughout the process cycle. If a determinant type was specified for the document sequence, then enter a specific determinant value related to the determinant type.

At run time, when users create documents, the document sequence to be assigned is determined based on the following:

- An active assignment that matches the correct combination of category
- The numbering method
- The date range containing the transaction date

Auditing Document Sequences

You can audit document sequences, if required, to provide an audit trail of the document sequences used in a specific product. However, before enabling the audit functionality for a document sequence, you must have created an audit table for the specific document sequence, using appropriate details. Enabling the audit functionality is permitted only for newly created document sequences. You can't audit document sequences that are already in use by a specific product.

For more information about defining a document sequence audit table, see the Oracle Fusion Applications Developer's Guide.

Related Topics

- Managing Modules in Application Taxonomy: Points to Consider

Define Project Contract Business Unit Options

Contract Components for Internal Billing: How They Work Together

To use intercompany billing or interproject billing , your implementation team must configure a number of distinct features within Oracle Fusion Enterprise Contracts. These features work in cohesion with financial and project features to create internal invoices and transfer revenue between organizations.

Contract Type for Intercompany Billing

Select the intercompany billing option on a contract type to identify a contract as enabled for intercompany billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the intercompany payables invoice such as expenditure type, expenditure organization, receiver project, receiver task, and the provider business unit.

Contract Type for Interproject Billing

Select the interproject billing option on a contract type to identify a contract as enabled for interproject billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the interproject payables invoice such as expenditure type, expenditure organization, receiver project, and the receiver task.

Contract Business Unit Internal Billing Options

Review and update the customer contract management business function options to control the processing of interproject billing. This table lists the internal billing options that must be defined for the contract business unit.

Feature Name	Description
Invoice Numbering Method	• If you want to enter invoice numbers manually, select the manual option and either the alphanumeric or numeric invoice number type. • If you want the application to create invoice numbers automatically, select the automatic option, and enter a starting invoice number.
Invoice Batch Source	Specify the invoice batch source for the interproject contract invoices that are transferred to Oracle Fusion Receivables.

Contract Line and Receiver Project

After you create an internal contract, link a contract line to the receiver project and task. This allows for the cross-charge transactions that are charged to the project and task to be billed from the provider business unit to the receiver business unit.

By default, the receiver project is also the associated project for the contract line, and you cannot add another associated project or change the associated project for that contract line. However, the associated task and receiver task can be different, so you can select another associated task for the project if necessary.

The receiver project must have the same legal entity as the internal customer.

Note: Only one receiver project can be linked to a contract line. The intercompany invoice generation process automatically groups invoice lines by the contract lines. Interproject invoices have a fixed format.

Related Topics

- Creating a Contract for Intercompany Billing: Example

Project Components for Internal Billing: How They Work Together

To use the intercompany billing or interproject billing functionality, your implementation team must configure a number of distinct features within Oracle Fusion Projects. These features work in cohesion with contract and financial features to create internal invoices and revenue transfers between organizations.

Invoice Formats

Define internal invoice formats for invoices generated by intercompany or interproject billing contracts. The invoice formats control the grouping of transactions on invoice lines for intercompany contracts. Specify the grouping options to summarize expenditure items and events, and the fields that should be displayed on the invoice line. Create different invoice formats for intercompany labor, nonlabor, and event billing.

If you want the invoice format to be used for both customer and internal invoices, enable the invoice format for customer invoices and internal invoices.

Note: All internal invoices must have a fixed format. Enable the fixed format feature to prevent the rearranging or regrouping invoice line details on intercompany invoices.

Invoice Methods and Revenue Methods

Define invoice methods and revenue methods to determine the calculation method of invoice and revenue amounts for intercompany contracts during invoice generation and revenue recognition. Enable the invoice methods and revenue methods for intercompany billing.

Select from the following labor and nonlabor schedule types that are available for rate-based intercompany invoice generation and revenue recognition:

- Bill rate
- Burden rate
- Transfer price
- Cost reimbursable

Billing Resource Breakdown Structure

Enter resource formats and resource types for the intercompany billing resource structure that is shared by business units. This billing resource breakdown structure defines the types of resources that can be referenced on billing controls for intercompany and interproject contracts.

Receiver Project

Create a receiver project in the receiver business unit.The receiver project can be a project that is linked to both and external contract (for external billing) and intercompany contract (for creating internal cross-charge transactions). The receiver business unit receives the supplier invoices.

Each receiver project can receive invoices from multiple internal contracts or from multiple contract lines of the same contract.

Enable the tasks on the receiver project that can be used for interproject billing and to allow cross-charge transactions.

Provider Project

Create a provider project to use during interproject billing. Each receiver project can have one or more provider projects. The provider project can be in the same business unit or a different business unit as the receiver project.

Expenditures are charged to the provider project during interproject billing scenarios.

Related Topics

- Invoice Formats: Explained

FAQs for Define Project Contract Business Unit Options

Can I create a contract for intercompany billing with transfer price rules?

Yes, but only if you derive rates for an intercompany contract based on an organization hierarchy structure instead of the bill rates defined on a bill plan. The contract line and bill plan architecture allows you to specify a different bill plan for each provider and receiver organization. Select a bill rate or burden rate schedule for each of your contract bill plans. However, if your rates are defined at a granular level, you may need to derive rates for an organization hierarchy structure using transfer price rules.

Why can't I see the internal billing details on a contract?

If you do not see the internal billing features on a contract, check the attributes on the contract type. The internal billing options of a contract are only visible if the contract type is designated as either intercompany or interproject.

34 Project Billing Configuration: Define General Project Billing Setup

Invoice and Revenue Method Components: How They Work Together

Invoice methods and revenue methods control the way you create invoices and recognize revenue for contracts. During implementation you create the methods and assign them to bill plans and revenue plans. Any contract or contract line that uses the bill or revenue plan calculates the invoice or revenue amount according to the instructions in the invoice or revenue method.

Method Classification

Invoice method classifications and revenue method classifications are predefined by Oracle Fusion Project Billing. Select an invoice or revenue method classification to set the approach for calculating invoice or revenue amounts.

This table lists the invoice method classifications and their descriptions.

Invoice Method Classification	Description
Amount Based	Generate invoices and revenue as billing events are completed.
Percent Complete	Generate invoices as progress is estimated. The percent complete invoice method automatically creates a billing event using an inception-to-date formula based on the calculation level in the bill plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Percent Spent	Generate invoices as progress is calculated, based on actual cost to date over budget cost. The percent spent invoice method automatically creates a billing event using an inception-to-date formula based on the calculation level in the bill plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Rate Based	Generate invoices as costs are incurred, using an invoice-specific set of bill rates, a burden schedule, or transfer price rates. The cost reimbursable classification method bills on cost directly, without applying any rate or markups.

This table lists the revenue method classifications and their descriptions.

Revenue Method Classification	Description
Amount Based	Recognize revenue as billing events are completed.
As Billed	Recognize revenue after invoices are finalized, using a common set of bill rates, a burden schedule, or transfer pricing for both invoicing and revenue.
As Incurred	Recognize revenue as costs are incurred, using a revenue specific set of bill rates, a burden schedule, or transfer pricing for both invoicing and revenue.
Percent Complete	Recognize revenue as progress is estimated. The percent complete revenue method automatically creates a billing event using an inception-to-date formula based on the calculation level in the revenue plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Percent Spent	Recognize revenue as progress is calculated, based on actual cost to date over budget cost. The percent spent revenue method automatically creates a billing event using an inception-to-date formula based on the calculation level in the revenue plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Rate Based	Recognize revenue as costs are incurred, using a revenue-specific set of bill rates, a burden schedule, or transfer price rates. **Tip:** Use this revenue classification method if you are using a fixed price for invoices, or if you require different burden schedules for invoices and revenue.

Intercompany Billing Option

If the invoice or revenue method will be used for intercompany contracts, enable the intercompany billing option to calculate the intercompany invoice or revenue amounts. Intercompany invoices and revenue use a rate-based classification method. Select a labor and nonlabor schedule for use when generating invoices or calculating revenue.

Note: An intercompany contract can use an invoice or revenue method that's not enabled for intercompany billing, or an invoice or revenue method that's enabled for intercompany billing. Enable the intercompany billing option if the invoice or revenue method will be used for intercompany contracts only. Intercompany invoices can use any type of invoice method classification.

Rate Definition

Select schedules for labor and nonlabor if your invoice or revenue method uses a rate-based classification method.

The schedule types for labor are **Person** and **Job**.

Invoice and Revenue Method Classifications: Critical Choices

Only bill plans and revenue plans with certain combinations of invoice and revenue method classifications can be used on the same contract line. If you add a bill plan and revenue plan with an invalid invoice and revenue method classification to the same contract line, you will receive an error message when you submit the contract for approval.

The possible revenue method classifications are:

- Amount based
- As incurred
- As invoiced
- Percent complete
- Percent spent
- Rate based

The possible invoice method classifications are:

- Amount based
- Rate based
- Percent complete
- Percent spent

Invoice and Revenue Method Combinations

Valid bill plan and revenue plan combinations for a contract line are dependent on the invoice method classification and revenue method classification. Most invoice method and revenue method classifications are valid. The invalid combinations are described in the table below.

Revenue Method Classification	Invoice Method Classification	Valid Combination?
As incurred	Amount based	No
As incurred	Percent complete	No
As incurred	Percent spent	No
As invoiced	Amount based	No
As invoiced	Percent complete	No
As invoiced	Percent spent	No
Rate based	Rate based	Yes, but a burden schedule is required for the bill plan and revenue plan.

Revenue Method Classification	Invoice Method Classification	Valid Combination?

Note: After the contract is approved, any changes to the bill plan including the revenue or invoice method classification must go through the change management process.

Define Project Invoicing Options

Project and Contract Invoice Components: How They Work Together

Project and contract components work together to create invoice distributions. The contract contains the instructions for calculating invoice amounts, and the project owns the cost transaction details. When you generate an invoice, invoice distributions are created for the contract.

Expenditure items and events are the transactions for projects and contracts. Invoice method classifications determine how transactions are invoiced. The invoice method determines how invoice amounts are derived.

- Enter an invoice method on a bill plan, which you create for a contract and assign to contract lines to provide a set of instructions for creating an invoice.
- Create billing controls for a contract or contract line to define the valid transaction dates, billing resources, and amount limits for transactions associated with the contract.
- Generate invoices to calculate the invoice amounts for a contract.

The following diagram illustrates the components of a project and a contract that determine invoice amounts, and the relationships between the components.

Invoice Method Classification

Assign a predefined invoice method classification to an invoice method. The invoice method classification determines whether the invoice amount is calculated based on rates, amounts, or progress.

Invoice Method

Create invoice methods for bill plans to use for determining the approach for generating invoice amounts. The invoice methods contain invoice generation instructions in the form of the invoice method classification and rate definition schedule types. Rate definition schedule types determine whether the rate source for invoicing comes from rate schedules, burden schedules, or transfer price schedules.

You must assign an invoice method to a bill plan, which contains the invoice generation instructions for a specific contract or contract line. An invoice method can be used by more than one bill plan.

Caution: Enable the invoice method for intercompany billing if it will be used for intercompany billing only.

Bill Plan

Create a bill plan within a contract that uses the invoice method you require. Assign the bill plan to one or more contract lines.

Note: Oracle Project Billing does not create new invoices for:

- Contracts on hold
- Contract lines on hold
- Contract lines with a bill plan on hold

  Previously generated invoices can still be updated, submitted for approval, approved, rejected, released, and transferred when the contract, contract line, or bill plan is on hold.

Billing Control

A billing control defines the types of permitted transactions (using billing resources), transaction date range, and maximum invoice (and revenue) amounts for a contract or contract line. Create a billing control within a contract at either the contract or contract line level. The inception-to-date (ITD) invoice amount cannot exceed the hard limit amount of a billing control. If the ITD invoice amount exceeds the soft limit, invoice generation will still occur, but you will receive a warning the first time this occurs.

Expenditure Item

The project and task for an expenditure item are matched to the associated contract line during invoice generation. Invoicing can occur if the transaction date, billing resource, and amount for the expenditure item pass the contract billing controls. If the expenditure item is mapped to more than one eligible contract line, the processing order is determined as follows:

- The contract billing sequence determines the processing order of multiple contracts.
- The contract billing controls determine the processing order of multiple contract lines within a single contract.
- The contract contribution percentage determines the eligible invoice amount for each contract line.

Oracle Fusion Project Billing creates a billing transaction for each unique combination of expenditure item and contract line. The billing transaction is the source for creating invoice distributions.

Event

Invoice events are automatically created during invoice generation if the invoice method is percent spent or percent complete. Manual events are also processed during invoice generation. Oracle Fusion Project Billing creates a billing transaction for each automatic or manual event. The billing transaction is the source for creating invoice distributions.

Related Topics

- Contract Validation: Explained

Specifying the Unit of Measure for Invoice Lines Sent to Oracle Fusion Receivables: Critical Choices

The Specify Unit of Measure for Invoice Lines Sent to Oracle Fusion Receivables profile option indicates the unit of measure to use for all invoice lines transferred from Oracle Fusion Projects to Oracle Fusion Receivables. This profile option is required in order to use Oracle Fusion Project Billing. If you are using Oracle Fusion Projects without Oracle Fusion Receivables, you do not need to set this profile.

Oracle Fusion Receivables requires a unit of measure for each invoice line. Oracle Fusion Projects creates each invoice line with a quantity of 1, a unit of the unit type you specify in your profile option, and an amount equal to the currency amount of the invoice line as it appears in Oracle Fusion Projects.

Note: The internal name for this profile option is PJB_AR_INVOICE_UOM.

Unit of Measure Class

Define a unit of measure class before you define a unit of measure. Oracle Fusion Receivables requires that you associate each unit of measure you define with a unit of measure class. You must define a unit of measure class before you can set the profile option.

Unit of Measure

The default unit of measure value is **Each**. Define a unit of measure of **Each** in Oracle Fusion Receivables to use with this profile option.

Invoice Formats: Explained

An invoice format determines how Oracle Fusion Projects creates an invoice line. You can define different formats for labor, nonlabor and event invoice line items, and specify if you want to use the format for customer invoices, internal invoices, or both. Additionally, you can specify how you want to summarize expenditure items, and the fields you want an invoice line to display. You can also include free-form text on an invoice line.

You can use customer invoice formats only for regular contract invoices, and internal invoice formats only for invoices generated by intercompany and interproject contracts. You can also use an invoice format for both customer and internal invoices.

You configure the following components of an invoice format:

- Format type
- From and to dates
- Grouping option
- Customer or internal invoice option
- Fixed format
- Start and end position

- Text column

Format Type

The format type controls the invoice formats you see for labor, nonlabor and events when you enter invoice formats using the Projects window.

From and To Dates

The from and to dates determine the period during which the invoice format is active.

Grouping Option

A grouping option specifies the way invoice distribution lines are grouped together to form an invoice line.

Customer or Internal Invoice Option

If you are using intercompany or interproject billing, create an internal invoice format to summarize cross-charge transactions. Depending on the requirements of the receiver business units, you may need to define several internal invoice formats. All internal formats automatically have a fixed format.

If you create an internal invoice format, you must select contract line as an attribute. This is to ensure that no two contract lines can be combined into a single invoice line, as they could be tied to different receiver projects or tasks, and would need to be created as separate invoice lines in order to post to the correct receiver project or task.

Although one invoice format can support both customer and internal invoices, the list of values for the Field Name only includes those values that are shared by the two formats.

Fixed Format

A fixed format prohibits distributions from being moved to other invoice lines. Intercompany and interproject invoices must have a fixed format.

Start and End Positions

The start and end positions are values between 1 and 240 that specify where the text in the Field Name appears on the invoice line.

Text Column

Enter the text in this column that you want to display on the invoice.

FAQs for Define Project Invoicing Options

What's an invoice method?

Rule defined by the implementation team that determines the calculation method of invoice amounts for contracts during invoice generation.

What's an invoice method classification?

Predefined classification for an invoice method that determines the basis for calculating invoice amounts.

The predefined invoice method classifications are: amount based, percent complete, percent spent, and rate based.

Assign an invoice method classification to an invoice method.

Define Project Revenue Options

Project and Contract Revenue Components: How They Work Together

Project and contract components work together to create revenue distributions. The contract contains the instructions for calculating revenue amounts, and the associated project contains the cost transaction details. When you generate revenue, revenue distributions are created for the contract.

Expenditure items and events are the transactions for projects and contracts. Revenue method classifications determine how transactions recognize revenue.

The revenue method determines how revenue rates are derived. Enter a revenue method on a revenue plan, which you create for a contract and assign to contract lines to provide a set of instructions for recognizing revenue.

Create billing controls for a contract or contract line to define the valid transaction dates, billing resources, and amount limits for transactions associated with the contract.

Generate revenue to calculate the revenue amounts for a contract.

The following diagram illustrates the components of a project and a contract that determine revenue amounts, and the relationships between the components.

Revenue Method Classification

Assign a predefined revenue method classification to a revenue method. The revenue method classification determines whether the revenue amount is calculated based on rates, amounts, or progress.

Revenue Method

Create revenue methods for revenue plans to use for recognizing revenue. The revenue methods contain revenue recognition instructions in the form of the revenue method classification and rate definition schedule types.

You must assign a revenue method to a revenue plan, which will give the revenue recognition instructions to a specific contract or contract line. A revenue method can be used by more than one revenue plan.

Caution: Enable the revenue method for intercompany billing if it will be used for intercompany billing only.

Revenue Plan

A revenue plan contains a set of instructions for recognizing revenue on a contract or contract line. Create a revenue plan within a contract that uses the revenue method you require. Assign the revenue plan to one or more contract lines that are enabled for billing.

Note: Revenue cannot be recognized for a revenue plan on hold.

Billing Control

A billing control defines the type of permitted transactions (using billing resources), transaction date range, and maximum invoice and revenue amounts for a contract or contract line. Create a billing control within a contract at either the contract or contract line level. The revenue amount cannot exceed the hard limit amount of a billing control. If the revenue amount exceeds the soft limit, revenue recognition will still occur, but you will receive a warning.

Expenditure Item

The project and task for an expenditure item are matched to the associated contract line during revenue generation. Revenue recognition can occur if the transaction date and billing resource for the expenditure item pass the contract billing controls.

If the expenditure item is mapped to more than one eligible contract line, the processing order is determined as follows:

- The contract billing sequence determines the processing order of multiple contracts.
- The contract billing controls determine the processing order of multiple contract lines within a single contract.
- The contract contribution percentage determines the eligible amount of revenue to recognize for each contract line.

Oracle Fusion Project Billing creates a billing transaction for each unique combination of expenditure item and contract line. The billing transaction is the source for creating revenue distributions.

Event

Revenue events are automatically created during revenue generation if the revenue method is percent spent or percent complete.

Manual events are also processed during revenue generation. Oracle Fusion Project Billing creates a billing transaction for each event. The billing transaction is the source for creating revenue distributions.

Related Topics

- Event Components: How They Work Together
- Import Project Billing Events Process

FAQs for Define Project Revenue Options

What's a revenue method?

Rule defined by the implementation team that determines the calculation method of revenue amounts for contracts during revenue generation.

What's a revenue method classification?

Predefined classification for a revenue method that determines the basis for calculating revenue amounts.

The predefined revenue method classifications are as-billed, as-incurred, amount based, percent complete, percent spent, and rate based.

Assign a revenue method classification to a revenue method.

35 Project Billing Configuration: Define Project Billing Business Unit Options

Specify Customer Contract Management Business Function Properties

Customer Contracts Business Unit Setup: Explained

Using the **Specify Customer Contract Management Business Function Properties** task, available by navigating to Setup and Maintenance work area and searching on the task name, you can specify a wide variety of business function settings for customer contracts in a specific business unit. The selections you make for these business functions impact how Oracle Enterprise Contracts behaves during contract authoring.

Using the **Specify Customer Contract Management Business Function Properties** task, manage these business function properties:

- Enable related accounts
- Set currency conversion details

  Note: You must select a default currency in the customer or supplier business function properties page, if not populated automatically from the ledger assigned to the business unit in the assign business function setup task.

- Manage project billing options
- Set up clause numbering
- Set up the Contract Terms Library
  The setup options available for the Contract Terms Library are applicable to both customer and supplier contracts, and are described in the business unit setup topic for the Contract Terms Library. That topic is available as a related link to this topic.

Enabling Related Customer Accounts

Contract authors can specify bill-to, ship-to, and other accounts for the parties in a contract. Enable the related customer accounts option if you want accounts previously specified as related to the contract party to be available for selection.

Managing Currency Conversion Options

If your organization plans to transact project-related business in multiple currencies, then select the multicurrency option. This allows a contract author to override a contract's currency, which defaults from the ledger currency of the business unit. It also enables the contract author to specify currency conversion attributes to use when converting from the bill transaction currency to the contract currency and from the invoice currency to the ledger currency.

In the Bill Transaction Currency to Contract Currency region, enter currency conversion details that will normally be used, by all contracts owned by this business unit, to convert transaction amounts in the bill transaction currency to the contract

currency. Newly created contracts contain the default currency conversion values, but you can override the values on any contract, if needed.

In the Invoice Currency to Ledger Currency region:

- Enter invoice transaction conversion details if the invoice and ledger currencies can be different.
- Enter revenue transaction conversion details if the revenue and ledger currencies can be different for as-incurred and rate-based revenue.

Managing Project Billing Options

The options available for selection in the Project Billing region control the behavior of project invoicing and revenue recognition for contracts with project-based work. Project billing can behave differently for external contracts (customer billing) or intercompany and interproject contracts (internal billing).

Set these options, which apply to all contracts:

- Select the **Transfer Revenue to General Ledger** option if you want to create revenue accounting events and entries, and transfer revenue journals to the general ledger. If this option is not selected, then revenue can still be generated, but will not be transferred to the general ledger.
- Indicate if a reason is required for credit memos that are applied to invoices.

There are two sets of the following options, one for customer billing and a second for internal billing:

- Select an invoice numbering method, either **Manual** or **Automatic**. The invoice numbering method is the method that Oracle Fusion Receivables uses to number its invoices, upon release of draft invoices from Project Billing.
  - If the invoice numbering method is **Manual**, then select an invoice number type, which sets the type of Receivables invoice numbers that are allowed. Valid values are **Alphanumeric** and **Numeric**.
  - If the invoice numbering method is **Automatic**, then enter the next invoice number to use when generating Receivables invoice numbers.
- Select the Receivables batch source to use when transferring invoices to Receivables.

Set this option only for customer billing:

- Indicate if you want contract authors to manually enter the Receivables transaction type on the customer contracts they create.

Managing Clause Numbering

You can choose to number clauses manually or automatically.

If you choose the automatic numbering method, you must select a determinant level for the numbering. You must then select the appropriate clause sequence category from document sequences that you set up for this numbering level.

Contract Terms Library Business Unit Setup: Explained

You can specify a wide variety of Contract Terms Library settings for either customer or supplier contracts within each business unit, by using either the **Specify Customer Contract Management Business Function Properties** or the **Specify Supplier Contract Management Business Function Properties** tasks. These tasks are available by navigating to the **Setup and Maintenance** work area and searching on the task name.

For the Contract Terms Library in each business unit, you can:

- Enable clause and template adoption.

- Set the clause numbering method.
- Set the clause numbering level for automatic clause numbering of contracts.
- For a contract with no assigned ledger or legal entity, set the document sequence to Global or Business Unit level.
- Enable the Contract Expert enabling feature.
- Specify the layout for printed clauses and contract deviation reports.

Enabling Clause Adoption

If you plan to use clause adoption in your implementation, then set up the following:

1. Specify a global business unit

   You must designate one of the business units in your organization as the global business unit by selecting the **Global Business Unit** option. This makes it possible for the other local business units to adopt and use approved content from that global business unit. If the **Global Business Unit** option is not available for the business unit you are setting up, this means that you already designated another business unit as global.
2. Enable automatic adoption

   If you are implementing the adoption feature, then you can have all the global clauses in the global business unit automatically approved and available for use in the local business by selecting the **Autoadopt Global Clauses** option. If you do not select this option, the employee designated as the Contract Terms Library Administrator must approve all global clauses before they can be adopted and used in the local business unit. This option is available only for local business units.
3. Specify the administrator who approves clauses available for adoption

   You must designate an employee as the Contract Terms Library administrator if you are using adoption. If you do not enable automatic adoption, then the administrator must adopt individual clauses or localize them for use in the local business unit. The administrator can also copy over any contract terms templates created in the global business unit. The clauses and contract terms templates available for adoption are listed in the administrator's Terms Library work area.

Setting Clause Numbering Options

You can set up automatic clause numbering for the clauses in the business unit by selecting Automatic in the **Clause Numbering** field and setting the clause numbering level. Then select the appropriate clause sequence category for the specified numbering level. You must have previously set up document sequences for the document sequence categories of global, ledger, and business unit. If clause numbering is manual, contract terms library administrators must enter unique clause numbers each time they create a clause.

You can choose to display the clause number in front of the clause title in contracts by selecting the **Display Clause Number in Clause Title** option.

Enabling Contract Expert

You must select the **Enable Contract Expert** option to be able to use the Contract Expert feature in a business unit. This setting takes precedence over enabling Contract Expert for individual contract terms templates.

Specifying the Printed Clause and Deviations Report Layouts

For each business unit, you can specify the Oracle BI Publisher RTF file that serves as the layout for:

- The printed contract terms

  Enter the RTF file you want used for formatting the printed clauses in the **Clause Layout Template** field.

- The contract deviations report

  The RTF file you select as the **Deviations Layout Template** determines the appearance of the contract deviations report PDF. This PDF is attached to the approval notification sent to contract approvers.

Related Topics

- How the Selection of a Business Unit Affects Clauses and Other Objects in the Library
- Contract Expert: How It Works
- Contract Printing and Layout Templates: Explained

FAQs for Define Project Billing Business Unit Options

Why can't I locate an invoice?

Access to invoices is secured by the business unit. You only have access to invoices that belong to contracts in the business unit assigned to your role. You can see all invoices for projects that are linked to the contracts which you can access.

36 Project Billing Configuration: Define Intercompany Project Billing

Intercompany Balancing Rules: Explained

Intercompany balancing rules are used to generate the accounts needed to balance journals that are out of balance by legal entity or primary balancing segment values These same rules are also used to generate the intercompany receivables account and intercompany payables account of transactions entered in the Intercompany module.

The intercompany balancing rules are also used to generate the intercompany receivables account for the provider side of an intercompany transaction. The balancing rules also used to generate the intercompany payables account for the receiver side of an intercompany transaction.

You specify the intercompany receivables and intercompany payables accounts you want to use as the template for building the intercompany receivables and intercompany payables accounts. The intercompany balancing feature then uses these rules to generate the accounts of the balancing lines it creates.

Defining Intercompany Balancing Rules

You can define intercompany balancing rules at the following levels:

1. Primary balancing segment
2. Legal entity
3. Ledger
4. Chart of accounts

The rules are evaluated in the order shown above. For example, you can define a Primary Balancing Segment rule and a Legal Entity level rule. If both rules can be used to balance a particular journal, the Primary Balancing Segment rule is used, as it has a higher precedence.

You have flexibility in defining your intercompany balancing rules. You can have a simple setup in which you define one rule for your chart of accounts. This rule is used for all intercompany balancing for all ledgers that use this chart of accounts. Alternatively, you can have a more granular set of rules. For example, you can define a different rule for each legal entity and one chart of accounts rule to cover any gaps in your rule definitions. You can gain even more granularity by defining rules for specific journal and/or category combinations or intercompany transaction types.

Intercompany Balancing Rules: Examples

This topic provides examples of intercompany balancing rules and the intercompany balancing lines generated. These rules are used to generate the accounts needed to balance journals that are out of balance by legal entity or primary balancing segment values.

Simple Chart of Accounts

In this scenario you have one chart of accounts for all ledgers. The chart of accounts has an intercompany segment. You are using this intercompany segment and the company segment to identify the intercompany trading partners for each transaction. You do not have a need to track their intercompany activity at a granular level such as by journal source and journal category or by intercompany transaction type.

Setup

- InFusion USA Chart of Accounts

Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment	Account	Intercompany Segment
Segment Name	Company (CO)	Cost Center (CC)	Product (PROD)	Account (ACCT)	Intercompany (IC)

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Chart of Accounts Rule

Rule Number	Chart of Accounts	AR Account	AP Account	Source	Category	Transaction Type
1	InFusion USA Chart of Accounts	1000 - 000 - 0000 - 13010 - 0000	1000 - 000 - 0000 - 21010 - 0000	Other	Other	None

- Journal Balancing
  - Journal before Balancing

Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
2	Liability	InFusion Textiles	4000	500	1300	40118	0000		150

- Journal Balancing
  - Journal after Balancing

Uses Rule	Line	Line Type	Legal Entity	Company	Cost Center	Product	Account	Intercompany	Debit	Credit
	1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
	2	Liability	InFusion Textiles	4000	500	1300	40118	0000		150
1	3	IC AP	InFusion Farms	3100	100	1200	21010	4000		150
1	4	IC AR	InFusion Textiles	4000	500	1300	13010	3100	150	

Legal Entity and Chart of Accounts Rules

In this example the legal Entity InFusion Textiles intercompany manufacturing activities are tracked separately from its non-manufacturing activities. In order to achieve this legal entity level rules are defined specifically between the legal entity InFusion Textiles and the two manufacturing legal entities, InFusion Products (East) and InFusion Products (West). A chart of accounts rule is created to cover all other intercompany activities.

Setup

- InFusion USA Chart of Accounts

Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment	Account	Intercompany Segment
Segment Name	Company	Cost Center	Product	Account	Intercompany

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Chart of Accounts Rule

Rule Number	Chart of Accounts	AR Account	AP Account	Source	Category	Transaction Type
2	InFusion USA Chart of Accounts	1000 - 000 - 0000 - 13050 - 0000	1000 - 000 - 0000 - 21050 - 0000	Other	Other	None

- Legal Entity Level Rule

Rule No.	From Legal Entity	To Legal Entity	AR Account	AP Account	Source	Category	Transaction Type
3	InFusion Textiles	InFusion Products (West)	1000 - 000 - 0000 - 13020 - 0000	1000 - 000 - 0000 - 21020 - 0000	Other	Other	None
4	InFusion Textiles	InFusion Products (East)	1000 - 000 - 0000 - 13030 - 0000	1000 - 000 - 0000 - 21030 - 0000	Other	Other	None

- Journal Balancing
  - Journal before Balancing

Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
2	Expense	InFusion Products (East)	5000	100	1200	52340	0000	200	

Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
3	Expense	InFusion Products (West)	6000	200	1300	52345	0000	300	
4	Liability	InFusion Textiles	4000	500	1300	40118	0000		650

- Journal Balancing
  - Journal after Balancing

Uses Rule	Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
	1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
	2	Expense	InFusionProd (East)	5000	100	1200	52340	0000	200	
	3	Expense	InFusionProd (West)	6000	200	1300	52345	0000	300	
	4	Liability	InFusion Textiles	4000	500	1300	40118	0000		650
2	5	IC AR	InFusion Textiles	4000	500	1300	13050	3100	150	
2	6	IC AP	InFusion Farms	3100	100	1200	21050	4000		150
4	7	IC AR	InFusion Textiles	4000	500	1300	13030	5000	200	
2	8	IC AP	InFusionProd	5000	100	1200	21050	4000		200
3	9	IC AR	InFusion Textiles	4000	500	1300	13020	6000	300	
2	10	IC AP	InFusionProd (West)	6000	200	1300	21050	4000		300

Secondary and Clearing Company Balancing Options: Explained

Secondary and Clearing Company Balancing options are used to balance the second balancing segment and/or the third balancing segment, when a transaction is unbalanced by one of these segments but is already balanced by the primary balancing segment. This option is defined for a ledger but you can create rules for various Source and Category combinations.

Secondary and Clearing Company balancing options include the following settings:

- Intercompany Receivables and Intercompany Payables accounts: You can use as the template to build balancing accounts for balancing segment 2 and balancing segment 3 when the journal is already balanced by primary balancing segment.
- Summarization options: You can choose to summarize lines within a legal entity before balancing lines are generated by choosing the Summary Net option. Alternatively choose the Detail options so lines are not summarized before balancing within a legal entity. Note that summarization always applies to balancing lines generated in a cross legal entity scenario.
- Clearing company options: Oracle recommends always setting clearing company options to handle many-to-many journals as this avoids balancing failing during General Ledger Posting or Subledger Accounting Create Accounting process.

Clearing Company Options

You can choose to set clearing company options to balance a journal with different primary balancing segment values that all belong to a single legal entity. Set the following options to handle your clearing company balancing.

- Clearing Company Condition: Choose when to use a clearing company.
  - Use clearing company only for intracompany journals.
  - Use clearing company for all many-to-many journals
  - The default value for this option is to error Many-to-Many journals.
- Clearing Company Source: Choose how the clearing company value is derived for your balancing lines, from the following options:
  - Default clearing balancing segment value.
  - Manually entered clearing balancing segment value. Manually entered clearing balancing segment value. Note that if you select Manually entered clearing balancing segment value, you will need to manually enter a value in the create journals screen. This option will not work for subledger accounting entries as they do not have a field on the user interface to enter this value.
- Clearing Company Value: If you selected Default clearing balancing segment value for Source, you must select a primary balancing segment value in this field. This is the value used to balance your intracompany or many-to-many journals.

Secondary and Clearing Company Balancing Options: Examples

This topic provides examples of ledger balancing options, the setup required, and the journal before and after balancing.

Simple Ledger Balancing with no Clearing Company Options

In this scenario the enterprise has the second balancing segment and the third balancing segment enabled for its chart of accounts. The journal is balanced by primary balancing segment but is out of balance by the second balancing segment and the third balancing segment.

Setup

- InFusion USA Chart of Accounts

Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment	Account	Intercompany Segment
Segment Name	Company (CO)	Cost Center (CC)	Product (PROD)	Account (ACCT)	Intercompany (IC)

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Ledger Balancing Options

Rule Number	Ledger	Source	Category	Transaction Type	AR Account	AP Account
1	InFusion USA	Other	Other	None	1000 - 000 - 0000 - 13010 - 0000	1000 - 000 - 0000 - 21010 - 0000

- Journal Balancing
  - Journal Before Balancing

Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
2	Liability	InFusion Farms	3100	500	1300	40118	0000		150

- Journal Balancing
  - Journal after Balancing

Uses Rule	Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
	1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
	2	Liability	InFusion Farms	3100	500	1300	40118	0000		150
1	3	AP	InFusion Farms	3100	100	1200	21010	0000		150
1	4	AR	InFusion Farms	3100	500	1300	13010	0000	150	

Ledger Balancing Options with Detail Summarization and Clearing Company Options Set

In this scenario the enterprise has the second balancing segment and the third balancing segment enabled for its chart of accounts. Management has decided to use a clearing company for balancing Many-to-Many journals only. Since the primary balancing segment values in the journal are out of balance intercompany balancing is required. Additionally, since clearing company options have been specified they will be used to balance the journal. Note that if the primary balancing segment values were balanced and only the second balancing segment and the third balancing segment were out of balance, the clearing company options would not be used.

Setup

- InFusion 1000, USA Chart of Accounts

Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment		Intercompany Segment
Segment Name	Company	Cost Center	Product	Account	Intercompany

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Chart of Accounts Rule

Rule Number	Chart of Accounts	AR Account	AP Account	Source	Category	Transaction Type
1	InFusion USA Chart of Accounts	1000 - 000 - 0000 - 13050 - 0000	1000 - 000 - 0000 - 21050 - 0000	Other	Other	None

- Ledger Balancing Options

Rule Number	Ledger	Source	Category	Transaction Type	AR Account	AP Account
2	InFusion USA	Other	Other	None	1000 - 000 - 0000 - 13010 - 0000	1000 - 000 - 0000 - 21010 - 0000

- Clearing Company Options

Rule Number	Ledger	Source	Category	Transaction Type	Condition	Source	Value
2	InFusion USA	Other	Other	None	Use for many-to-many journals only	Default clearing balancing segment value	9000

Note: The Ledger Balancing Options and Clearing Company Options appear as one line on the page.

- Journal Balancing
  - Journal before Balancing

Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
2	Expense	InFusion Farms	3100	300	1200	52340	0000	200	
3	Expense	InFusion Farms	3300	200	1300	52345	0000	300	
4	Liability	InFusion Farms	3400	500	1300	40118	0000		320
5	Liability	InFusion Farms	3500	600	1400	40112	0000		330

- Journal Balancing
  - Journal after Balancing

Uses Rule	Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
	1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
	2	Expense	InFusion Farms	3100	300	1200	52340	0000	200	
	3	Expense	InFusion Farms	3300	200	1300	52345	0000	300	
	4	Liability	InFusion Farms	3400	500	1300	40118	0000		320
	5	Liability	InFusion Farms	3500	600	1400	40112	0000		330
1	6	IC AR		9000	000	0000	13050	3100	150	
1	7	IC AP		3100	100	1200	21050	9000		150
1	8	IC AR		9000	000	0000	13050	3100	200	

Uses Rule	Line	Line Type	Legal Entity	CO	CC	PROD	ACCT	IC	Debit	Credit
1	9	IC AP		3100	300	1200	21050	9000		200
1	10	IC AR		9000	000	0000	13050	3300	300	
1	11	IC AP		3300	200	1300	21050	9000		300
1	12	IC AR		3400	200	1300	13050	9000	320	
1	13	IC AP		9000	000	000	21050	3400		320
1	14	IC AR		3500	600	1400	13050	9000	330	
1	15	IC AP		9000	000	000	21050	3500		330

Project Components for Internal Billing: How They Work Together

To use the intercompany billing or interproject billing functionality, your implementation team must configure a number of distinct features within Oracle Fusion Projects. These features work in cohesion with contract and financial features to create internal invoices and revenue transfers between organizations.

Invoice Formats

Define internal invoice formats for invoices generated by intercompany or interproject billing contracts. The invoice formats control the grouping of transactions on invoice lines for intercompany contracts. Specify the grouping options to summarize expenditure items and events, and the fields that should be displayed on the invoice line. Create different invoice formats for intercompany labor, nonlabor, and event billing.

If you want the invoice format to be used for both customer and internal invoices, enable the invoice format for customer invoices and internal invoices.

Note: All internal invoices must have a fixed format. Enable the fixed format feature to prevent the rearranging or regrouping invoice line details on intercompany invoices.

Invoice Methods and Revenue Methods

Define invoice methods and revenue methods to determine the calculation method of invoice and revenue amounts for intercompany contracts during invoice generation and revenue recognition. Enable the invoice methods and revenue methods for intercompany billing.

Select from the following labor and nonlabor schedule types that are available for rate-based intercompany invoice generation and revenue recognition:

- Bill rate
- Burden rate
- Transfer price
- Cost reimbursable

Billing Resource Breakdown Structure

Enter resource formats and resource types for the intercompany billing resource structure that is shared by business units. This billing resource breakdown structure defines the types of resources that can be referenced on billing controls for intercompany and interproject contracts.

Receiver Project

Create a receiver project in the receiver business unit.The receiver project can be a project that is linked to both and external contract (for external billing) and intercompany contract (for creating internal cross-charge transactions). The receiver business unit receives the supplier invoices.

Each receiver project can receive invoices from multiple internal contracts or from multiple contract lines of the same contract.

Enable the tasks on the receiver project that can be used for interproject billing and to allow cross-charge transactions.

Provider Project

Create a provider project to use during interproject billing. Each receiver project can have one or more provider projects. The provider project can be in the same business unit or a different business unit as the receiver project.

Expenditures are charged to the provider project during interproject billing scenarios.

Related Topics

- Invoice Formats: Explained
- Contract Components for Internal Billing: How They Work Together

Contract Components for Internal Billing: How They Work Together

To use intercompany billing or interproject billing , your implementation team must configure a number of distinct features within Oracle Fusion Enterprise Contracts. These features work in cohesion with financial and project features to create internal invoices and transfer revenue between organizations.

Contract Type for Intercompany Billing

Select the intercompany billing option on a contract type to identify a contract as enabled for intercompany billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the

attributes required to create the intercompany payables invoice such as expenditure type, expenditure organization, receiver project, receiver task, and the provider business unit.

Contract Type for Interproject Billing

Select the interproject billing option on a contract type to identify a contract as enabled for interproject billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the interproject payables invoice such as expenditure type, expenditure organization, receiver project, and the receiver task.

Contract Business Unit Internal Billing Options

Review and update the customer contract management business function options to control the processing of interproject billing. This table lists the internal billing options that must be defined for the contract business unit.

Feature Name	Description
Invoice Numbering Method	• If you want to enter invoice numbers manually, select the manual option and either the alphanumeric or numeric invoice number type. • If you want the application to create invoice numbers automatically, select the automatic option, and enter a starting invoice number.
Invoice Batch Source	Specify the invoice batch source for the interproject contract invoices that are transferred to Oracle Fusion Receivables.

Contract Line and Receiver Project

After you create an internal contract, link a contract line to the receiver project and task. This allows for the cross-charge transactions that are charged to the project and task to be billed from the provider business unit to the receiver business unit.

By default, the receiver project is also the associated project for the contract line, and you cannot add another associated project or change the associated project for that contract line. However, the associated task and receiver task can be different, so you can select another associated task for the project if necessary.

The receiver project must have the same legal entity as the internal customer.

Note: Only one receiver project can be linked to a contract line. The intercompany invoice generation process automatically groups invoice lines by the contract lines. Interproject invoices have a fixed format.

Related Topics

- Project Components for Internal Billing: How They Work Together
- Creating a Contract for Intercompany Billing: Example
- Why can't I see the internal billing details on a contract?

FAQs for Define Intercompany Project Billing

Why can't I see the internal billing details on a contract?

If you do not see the internal billing features on a contract, check the attributes on the contract type. The internal billing options of a contract are only visible if the contract type is designated as either intercompany or interproject.

37 Project Billing Configuration: Define Transfer Pricing

Manage Transfer Price Rules

Transfer Price Rules: Critical Choices

Create rules to determine how transfer prices are calculated for cross-charge transactions that require borrowed and lent processing or intercompany billing processing. Transfer price calculation can be based on the raw cost, burdened cost, or revenue of the cross-charged transaction.

To set up transfer price rules, you need to understand the following components:

- Transfer price rule attributes
- Transfer price determination logic

Transfer Price Rule Attributes

To create a transfer price rule, you specify the rule name and description, and define these attributes:

- **Type**: Valid transfer price rule types are **Labor** and **Nonlabor.**
- **Transfer Price Basis**: The basis for transfer price calculation. Transfer price basis options are:
  - Raw cost
  - Burdened cost
  - External recognized revenue
- **Calculation Method**: Transfer price calculation methods are:
  - Basis only: Use the transfer price with no further adjustments.
  - Apply burden schedule: Specify the name of an existing burden schedule to apply to the basis.
  - Apply rate schedule: Specify the name of an existing rate schedule to apply to the basis.
- **Burden Schedule**: The burden schedule to apply to the transfer price basis if the transfer price calculation method is to apply a burden schedule. You can select any burden schedule from any set.
- **Rate Schedule**: The rate schedule to apply to the transfer price basis if the transfer price calculation method is to apply a rate schedule. You can select any rate schedule from any set.
- **Markup or Discount Percentage**: A rate to apply to the transfer price amount that the rule calculates.

Transfer Price Determination Logic

The following table lists the valid combinations of transfer price basis and calculation methods, and the calculation logic used to determine transfer price amounts based on transfer price rules.

Transfer Price Basis	Calculation Method	Calculation Logic	Transfer Price Transaction Currency
Raw cost	Basis only	Raw cost with no multipliers applied	Same as transaction currency of expenditure item
Raw cost	Apply burden schedule	Burden multipliers are applied to raw cost	Same as transaction currency of expenditure item
Raw cost	Apply rate schedule	If the rate schedule has a markup, the markup is applied to raw cost If the rate schedule has a multiplier, the multiplier is applied to the amount	Currency of the rate schedule
Burdened cost	Basis only	Burdened cost with no multipliers applied	Same as transaction currency of expenditure item
Burdened cost	Apply burden schedule	Burden multipliers are applied to burdened cost	Same as transaction currency of expenditure item
Burdened cost	Apply rate schedule	Rate multipliers are applied to burdened cost	Currency of the rate schedule
External recognized revenue	Basis only	External recognized revenue with no multipliers applied	Regular recognized revenue in ledger currency, which is an attribute of the expenditure item

Related Topics

- Project Business Unit Cross-Charge Options: Critical Choices

Contract Components for Internal Billing: How They Work Together

To use intercompany billing or interproject billing , your implementation team must configure a number of distinct features within Oracle Fusion Enterprise Contracts. These features work in cohesion with financial and project features to create internal invoices and transfer revenue between organizations.

Contract Type for Intercompany Billing

Select the intercompany billing option on a contract type to identify a contract as enabled for intercompany billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the intercompany payables invoice such as expenditure type, expenditure organization, receiver project, receiver task, and the provider business unit.

Contract Type for Interproject Billing

Select the interproject billing option on a contract type to identify a contract as enabled for interproject billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the

attributes required to create the interproject payables invoice such as expenditure type, expenditure organization, receiver project, and the receiver task.

Contract Business Unit Internal Billing Options

Review and update the customer contract management business function options to control the processing of interproject billing. This table lists the internal billing options that must be defined for the contract business unit.

Feature Name	Description
Invoice Numbering Method	• If you want to enter invoice numbers manually, select the manual option and either the alphanumeric or numeric invoice number type. • If you want the application to create invoice numbers automatically, select the automatic option, and enter a starting invoice number.
Invoice Batch Source	Specify the invoice batch source for the interproject contract invoices that are transferred to Oracle Fusion Receivables.

Contract Line and Receiver Project

After you create an internal contract, link a contract line to the receiver project and task. This allows for the cross-charge transactions that are charged to the project and task to be billed from the provider business unit to the receiver business unit.

By default, the receiver project is also the associated project for the contract line, and you cannot add another associated project or change the associated project for that contract line. However, the associated task and receiver task can be different, so you can select another associated task for the project if necessary.

The receiver project must have the same legal entity as the internal customer.

Note: Only one receiver project can be linked to a contract line. The intercompany invoice generation process automatically groups invoice lines by the contract lines. Interproject invoices have a fixed format.

Related Topics

- Project Components for Internal Billing: How They Work Together
- Creating a Contract for Intercompany Billing: Example
- Why can't I see the internal billing details on a contract?

Project Components for Internal Billing: How They Work Together

To use the intercompany billing or interproject billing functionality, your implementation team must configure a number of distinct features within Oracle Fusion Projects. These features work in cohesion with contract and financial features to create internal invoices and revenue transfers between organizations.

Invoice Formats

Define internal invoice formats for invoices generated by intercompany or interproject billing contracts. The invoice formats control the grouping of transactions on invoice lines for intercompany contracts. Specify the grouping options to summarize expenditure items and events, and the fields that should be displayed on the invoice line. Create different invoice formats for intercompany labor, nonlabor, and event billing.

If you want the invoice format to be used for both customer and internal invoices, enable the invoice format for customer invoices and internal invoices.

Note: All internal invoices must have a fixed format. Enable the fixed format feature to prevent the rearranging or regrouping invoice line details on intercompany invoices.

Invoice Methods and Revenue Methods

Define invoice methods and revenue methods to determine the calculation method of invoice and revenue amounts for intercompany contracts during invoice generation and revenue recognition. Enable the invoice methods and revenue methods for intercompany billing.

Select from the following labor and nonlabor schedule types that are available for rate-based intercompany invoice generation and revenue recognition:

- Bill rate
- Burden rate
- Transfer price
- Cost reimbursable

Billing Resource Breakdown Structure

Enter resource formats and resource types for the intercompany billing resource structure that is shared by business units. This billing resource breakdown structure defines the types of resources that can be referenced on billing controls for intercompany and interproject contracts.

Receiver Project

Create a receiver project in the receiver business unit.The receiver project can be a project that is linked to both and external contract (for external billing) and intercompany contract (for creating internal cross-charge transactions). The receiver business unit receives the supplier invoices.

Each receiver project can receive invoices from multiple internal contracts or from multiple contract lines of the same contract.

Enable the tasks on the receiver project that can be used for interproject billing and to allow cross-charge transactions.

Provider Project

Create a provider project to use during interproject billing. Each receiver project can have one or more provider projects. The provider project can be in the same business unit or a different business unit as the receiver project.

Expenditures are charged to the provider project during interproject billing scenarios.

Related Topics

- Invoice Formats: Explained
- Contract Components for Internal Billing: How They Work Together

Managing Transfer Price Rates: Examples

Use these examples to understand how to configure cross-charge options on bill plans and revenue plans to achieve various interproject and intercompany billing scenarios.

One Cross-charge Rule or Rate, One Provider Business Unit, Any Receiver Business Unit, All Projects

To share one cross-charge rule or rate between one provider business unit and any receiver business unit, and all projects associated with the contract, configure your contract billing information as follows:

Bill Plan	Bill Rate Schedule
Bill Plan 1	Assign the bill rate schedule you want to use for the contract (provider) business unit to this bill plan.

One Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, All Projects

To share one cross-charge rule or rate between one provider and receiver business unit, and all projects associated with the contract, configure your contract billing information as follows:

Bill Plan	Bill Rate Schedule
Bill Plan 1	Assign the bill rate schedule you want to use for the provider business unit to this bill plan.
Bill Plan 2 All contract lines associated with the receiver projects can use this bill plan.	Assign the bill rate schedule you want to use for the receiver business unit to this bill plan.

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, One Project

To override a cross-charge rule or rate between a provider and receiver business unit for one project, configure your contract billing and contract line details as follows:

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a rate override for the contract line associated with the receiver project.	Project level

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, Task

If a resource is assigned to multiple roles and has more than one rate on a project, you may need to create an override at the project task level. To override a cross-charge rule or rate between a provider and receiver business unit, for the task on a specific project, configure your contract billing and contract line details as follows:

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a job rate override for the contract line associated with the receiver project.	Task level

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, Resource

If you are invoicing for a contractor, you may want to create an override at the resource level. To override a cross-charge rule or rate between a provider and receiver business unit, for a specific resource on a project, configure your contract billing and contract line details as follows:

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a person rate override for the contract line associated with the receiver project.	Task level

Project Business Unit Cross-Charge Options: Critical Choices

Oracle Fusion Projects provides two methods to process cross-charge transactions.

- Borrowed and Lent Accounting: Creates accounting entries that move an amount equal to the transfer price between the provider and receiver organizations within a legal entity. There is no formal internal invoice created with this method. Costs or revenue are shared based on transfer price rules.

  Use the Borrowed and Lent processing method to apply cross-charge transactions within a business unit or between business units.

- Intercompany Billing: Enables the provider organization to present a formal invoice based on the transfer price to the receiver organization and receive payment for services rendered and materials supplied. You can use this processing method between legal entities.

  You must set up the contract business unit to use the Intercompany Billing processing method.

This section describes the project business unit options for setting up cross-charge transactions for sharing costs and revenue within and between business units in the same legal entity.

Transfer Price Currency Conversion

Select the date type, either transaction date or project accounting date, and rate type that the system uses by default to determine the conversion rate to convert the transfer price amount from the transaction currency to the ledger currency.

Cross-Charge Transactions Within a Legal Entity

The method of creating cross-charge transactions can be different for transactions within a business unit than the method used across business units. You can choose either the Borrowed and Lent Processing method of creating cross-charge transactions, or specify that no cross-charge transactions will be created.

The processing method that you specify for cross-charge transactions between business units is the default method used between the provider business unit and any other receiver business unit. You can override the default processing method for specific receiver business units.

> **Note:** If you delete the override of the default processing method for a specific receiver business unit, you must manually adjust transactions to reflect the deleted controls.

FAQs for Manage Transfer Price Rules

What's a transfer price rule?

A rule to calculate the transfer price of cross-charge transactions. The key aspects when you define the rule are as follows:

- Type of transaction to which the rule applies: labor or nonlabor
- Basis for the cross-charge transaction: raw cost, burdened cost, or revenue amount
- Method used to calculate the transfer price: rate schedule, burden schedule, or no further adjustment
- Markup or discount percentage to apply to the transfer amount calculated by the rule
- Applicable date range for the rule

Can I select any burden schedule or bill rate schedule for a transfer price rule?

Yes. You can assign any rate schedule to a transfer price rule, regardless of the project rates set assigned to the bill rate schedule.

Manage Transfer Price Schedules

Transfer Price Schedules: Explained

Transfer price schedules contain the rules to determine the transfer price amount for transactions charged from a provider organization to a receiver organization. You create different transfer price schedules to use for various combinations of legal entities, business units, and organizations. You can create different schedules to use different rules for various projects and tasks between the same pairs of provider and receiver organizations. For example, you can define one schedule that contains the rules for capital projects and another for contract projects.

Before you set up transfer price schedules, you must set up organizations and transfer price rules.

Transfer Price Schedule Lines

Transfer price schedule lines contain details about the provider and receiver organization, labor transfer price rule and markup or discount percentage, nonlabor transfer price rule and markup or discount percentage, and amount type.

A transfer price schedule can contain provider and receiver organizations from any organization classification that's relevant to projects. The available organization classifications are determined at implementation when setting up organization hierarchies

and classifications. If you don't select a receiver organization, the transfer price schedule applies to any receiver organization that receives transactions from the specified provider organization.

A labor rule is valid transfer price rule with a type of labor. A nonlabor rule is a valid transfer price rule with a type of nonlabor. A transfer price schedule must contain either a labor or nonlabor rule, or both. You can assign a markup or discount percentage to each transfer price rule to apply to the transfer price amount that the rule calculates.

You assign cost transfer or revenue transfer as the amount type for the transfer price calculation.

Transfer Price Schedule Hierarchy

A transfer price schedule should be determined based on whether the cross-charge transaction is processed using the borrowed and lent processing method or the intercompany billing method. If you use the borrowed and lent processing method, you should assign a transfer price schedule to the receiver task or the project. If you use the intercompany billing method, the bill and the revenue plan can have a transfer price schedule.

> **Note:** The interproject billing method doesn't use transfer price calculation logic. Only the billing methods based on the bill rate schedule or burden rate schedule are allowed for interproject billing.

You can define a transfer price schedule at any organization level and legal entity level. Project Financial Management applications use the following logic to identify the appropriate schedule line:

1. If a transfer price schedule line exists for the provider organization (the project expenditure organization) and the receiver organization (the project and task owning organization), then the application uses the corresponding rule to calculate the transfer price.

   > **Note:** You define the project expenditure organization hierarchy in the implementation options for the provider business unit. You define the project and task owning organization hierarchy in the implementation options for the receiver business unit.

2. If it doesn't find a schedule line in the previous step and an organization hierarchy is used, the application checks for a line with the provider organization and a receiver parent organization.

   If the receiver organization has multiple intermediate parents and you defined schedule lines for more than one of the parents, the schedule line defined for the lowest level parent takes precedence over schedule lines defined for parents higher in the organization hierarchy.
3. If it doesn't find a schedule line in the previous step and an organization hierarchy is used, the application checks for a line with the provider parent organization and receiver parent organization.

   If the provider organization has multiple intermediate parents and you defined schedule lines for more than one of the parents, the schedule line defined for the lowest level parent takes precedence over schedule lines defined for parents higher in the organization hierarchy.

   > **Note:** If there is a schedule line with only a provider organization, and another schedule line with both provider and receiver organizations, the application gives precedence to the schedule line with both provider and receiver organizations.

4. If it doesn't find a schedule line in the previous step, the application checks for the default line for the transfer price schedule.
5. If it doesn't find a schedule line in the previous step, the process results in an error.

Related Topics

- Project Business Unit Cross-Charge Options: Critical Choices

- Setting Up Organizations for Project Financial Management: Worked Example

FAQs for Manage Transfer Price Schedules

What happens if I change a transfer price rule or transfer price schedule?

The revised transfer price rule and schedule is applicable to unprocessed transactions only. To change a previously processed transaction, you must adjust the expenditure item.

38 Project Billing Configuration: Define Customer Billing Configuration for Project Billing

Manage Transaction Sources

Managing Transaction Numbering: Points to Consider

Use the various options on the transaction source assigned to a transaction to manage your transaction numbering requirements.

There are these points to consider when defining transaction numbering for transactions assigned to specific transaction sources:

- Defining Document Sequences
- Using Automatic Transaction Numbering
- Copying Document Numbers to Transaction Numbers
- Allowing Duplicate Transaction Numbers
- Using the Credit Memo Transaction Source

Defining Document Sequences

If necessary, define document sequences to assign unique numbers to each transaction, in addition to the transaction number automatically assigned by Oracle Fusion Receivables.

Ensure that the necessary setups for document sequences are completed, according to your requirements.

Using Automatic Transaction Numbering

To automatically number new transactions you create using a transaction source, enable the **Automatic transaction numbering** option and enter a number in the **Last Number** field.

For example, to start numbering transactions with 1000, enter a last number of 999. Receivables automatically updates the **Last Number** fields on transaction sources, so you can review the transaction source later to see the last transaction number that was generated.

> **Note:** The last transaction number on the transaction source is an approximation only, due to caching.

You can use automatic transaction numbering with both Imported and Manual transaction sources.

Copying Document Number to Transaction Number

If you are using document sequences and you want to use the same value for both the document number and the transaction number for transactions assigned to a transaction source, enable the **Copy document number to transaction number** option.

If you are using Gapless document sequences, you should enable this option if you require gapless transaction numbering. This ensures that transaction numbers are generated sequentially and that there are no missing numbers.

Allowing Duplicate Transaction Numbers

Enable the **Allow duplicate transaction numbers** option to allow duplicate transaction numbers within a transaction source.

You cannot use this option with automatic transaction numbering.

Using the Credit Memo Transaction Source

Assign a credit memo transaction source to an invoice transaction source, if you want to number credit memos differently from the invoices that they credit.

Related Topics

- Document Sequences: Explained

Sales Credits on Imported Transactions: Explained

During AutoInvoice processing, whether you must provide sales credit information on imported transaction lines depends on the settings of the **Allow sales credits** option on the transaction source and the **Require salesperson** Receivables system option.

These are the requirements for passing sales credit information on imported transaction lines:

- If the **Require salesperson** system option and the **Allow sales credits** option on the transaction source are both enabled, you must provide sales credit information.
- If the **Require salesperson** system option is not enabled and the **Allow sales credits** option on the transaction source is enabled, you can provide sales credit information, but it is not required.
- If the **Require salesperson** system option is enabled and the **Allow sales credits** option on the transaction source is not enabled, you must provide sales credit information.
- If neither the **Require salesperson** system option nor the **Allow sales credits** option on the transaction source are enabled, you cannot provide sales credit information. AutoInvoice ignores any values that you pass.

Validating Imported Transactions: How It Works

Use the AutoInvoice Options and Import Information sections of an Imported transaction source to define how AutoInvoice validates imported transaction lines.

You don't have to pass values for all of the fields that are referenced in the transaction source. If you don't want AutoInvoice to pass certain data, then where available you can set the related option to **None**.

Note: Even if you set a transaction source data option to **None** in order to avoid importing this information into the interface tables, AutoInvoice can still validate and reject transaction lines with invalid data.

Settings That Affect the Validation of Imported Transactions

These settings affect the validation of imported transactions:

- **Invalid Line** field: Indicate how AutoInvoice handles imported transactions with invalid lines by selecting either Reject Invoice or Create Invoice.
  - If you select Reject Invoice, AutoInvoice doesn't import this transaction or any of its lines into the interface tables.
  - If you select Create Invoice, AutoInvoice creates a transaction with valid lines only. For example, you import an invoice with three invoice lines and one of the lines is invalid. AutoInvoice creates the invoice with the two valid lines only and rejects the invalid line. You can use the Edit Transaction page to add the rejected line.
- **Accounting Date in a Closed Period** field: Indicate how AutoInvoice handles imported transactions that have lines in the interface lines table that are in a closed accounting period.
  - Select Adjust to have AutoInvoice automatically adjust the accounting dates to the first accounting date of the next open or future enterable period.
  - Select Reject to reject these transaction lines.
- In the Import Information sections, where applicable select Number, Value, Segment, or ID for each option to indicate how AutoInvoice validates information:
  - Select Number to import a record into the interface tables using its assigned number.
  - Select Value to import a record into the interface tables using its actual name.

    Note: Use Value if you intend to use the transaction source to import data from a non-Oracle system.
  - Select Segment to use the flexfield segment.
  - Select ID to use the internal identifier of the record.
- Select Amount or Percent to indicate how AutoInvoice validates Sales Credits and Revenue Account Allocations on transaction lines.

How Imported Transactions Are Validated

AutoInvoice validates imported transactions based on the settings of the assigned Imported transaction source. Transactions that fail validation appear in the Import AutoInvoice Validation report.

AutoInvoice ensures that certain column values agree with each other. These values can be within an interface table or multiple interface tables. For example, if the transaction source indicates that a revenue scheduling rule can't be used, AutoInvoice ignores any values passed for invoicing rule, revenue scheduling rule, and revenue scheduling rule duration.

AutoInvoice performs these validations on transaction lines with revenue scheduling rules:

- Requires that these transactions also include an invoicing rule, if you import transactions that use revenue scheduling rules.
- Rejects lines, if the revenue scheduling rule has overlapping periods.
- Rejects lines, if the designated accounting periods don't exist for the duration of the revenue scheduling rule.

Related Topics

- Why did AutoInvoice reject transactions?

FAQs for Manage Transaction Sources

What do I create before creating transaction sources?

You may want to create certain records before creating your transaction sources.

You can optionally create these objects for all transaction sources:

- Transaction types: Define the transaction types that you want to appear by default on transactions assigned to your transaction sources.
- Invoice transaction flexfield: Define the reference information that you want to capture in the invoice transaction flexfield and display on imported transactions, such as a purchase order number.
- Credit memo transaction source: Define a transaction source for credit memos before you define a transaction source for invoices. Use this transaction source to number the credit memos created against invoices differently from the invoices they are crediting.

You can optionally create these objects for Imported transaction sources:

- AutoInvoice grouping rule: Define the grouping rule to appear by default on imported transaction lines.
- AutoInvoice clearing account: Define an AutoInvoice clearing account, if you intend to enable the **Create clearing** option. AutoInvoice puts any difference between the revenue amount and the selling price times the quantity for a transaction into this account.

How can I manage credit memos with transaction sources?

Special conditions may apply to the creation of transaction sources for credit memos.

Review these considerations for transaction sources assigned to credit memos:

- Define Manual transaction sources for credit memos created by the credit memo request approval process.
- Enable the **Copy transaction information flexfield to credit memo** option on Manual transaction sources used for credit memos, to copy the invoice transaction flexfield reference information to the credit memo that is crediting the invoice.
- Define and assign transaction sources for credit memos to transaction sources for invoices, if you want to number the credit memos created against invoices differently from the invoices they are crediting.

What happens if I don't enter an AutoInvoice grouping rule?

Assign the AutoInvoice grouping rule to Imported transaction sources that AutoInvoice uses to group imported transaction lines.

If you don't assign a grouping rule to an Imported transaction source, AutoInvoice uses the following hierarchy to determine which rule to use:

1. Grouping rule assigned to the transaction source of the transaction line.
2. Grouping rule assigned to the bill-to customer site profile of the transaction line.
3. Grouping rule assigned to the bill-to customer profile of the transaction line.
4. Grouping rule assigned to Receivables system options.

What happens if I don't create a clearing account?

If you don't use an AutoInvoice clearing account and enable the **Create clearing** option on the transaction source, AutoInvoice requires that the revenue amount be equal to the selling price times the quantity for all of the transactions it processes. AutoInvoice rejects any transaction line that does not meet this requirement.

39 Project Performance Reporting Configuration: Manage Project Units: Performance Reporting Options

Performance Data Summarization: How It's Processed

Summarization is a systematic organization of information for purposes of project analysis and tracking. You use summarized data to analyze the health of projects and drill down to the causes of any deviation from set thresholds. You can complete the following tasks using summarized data:

- Analyze project performance data
- Review project performance
- Analyze KPI categories and KPIs
- Track project progress
- View revenue and invoice summaries

Running summarization renders the KPI related information out of date with respect to the latest summarized information. Therefore, it is important that you generate KPI values after the summarization process completes. You can avoid generating KPI values manually, by enabling automatic generation of KPI values in the summarization options.

Settings That Affect Performance Data Summarization

You summarize data for a project unit or a business unit. You can also summarize performance data for a range of projects or projects owned by a project manager. Besides this, you must specify the following parameters each time you want to run the summarization process manually:

Select the appropriate summarization method as described in the following table:

Summarization Method	Usage
Incremental	General purpose summarization.
Bulk	Summarize large amounts of data at one time.
Delete and resummarize	Correct summary data when the source system data changes outside the regular transaction flow.
Resource breakdown structure	Migrate all summary data from one resource breakdown structure version to the next. If you select this option you must also specify the resource breakdown structure header.

Specify whether to summarize the following transactions:

- Budget and forecast
- Commitment
- Actual cost
- Revenue and invoice

How Performance Data Is Summarized

Performance data summarization collects data from various sources and assigns amounts to relevant tasks and resources in the project. After the process summarizes data, you can view how much is being spent on, incurred by, or received by a task or resource. Also, you can track data across different time lines since the process groups according to periods. Run the **Update Project Performance Data** process from the Scheduled Processes page to summarize data.

You can run the summarization process for different situations, such as:

- Your data is out of date and you want to update it.
- Your data is corrupt and you want to delete the existing data and resummarize.
- You have a large volume of unsummarized data, and want to summarize the entire bulk of data in one run.

After you select the summarization parameters and submit a request, the process performs the following steps to generate the data that you view in the application:

- Scope the summarization by determining the list of projects, contracts, and batches of transaction data for which to run summarization.

  Note: When you summarize a project associated with a contract having multiple projects, the application summarizes all the projects associated with the contract.

- Extract data to summarize from data sources, group it by periods, and prepare the data for resource mapping.
- Populate summary data into designated tables before resource breakdown structure mapping.
- Populate business unit, project unit, and other lookup information.
- Populate performance reporting dimension data including time, task breakdown structure, and resource breakdown structure.
- Look up resource breakdown structure mappings, scenario dimension members, period IDs, and prepare data for loading into Oracle Essbase.
- Load data into Oracle Essbase and merge data into the summary tables.

You can track the progress of summarization on the process monitor. If the process fails to complete, it continues from the point of failure when you resubmit it.

Related Topics

- KPI Values: How They're Generated

Setting Up the Planning Amount Allocation Basis: Points to Consider

When you set up summarization options, you are required to specify the planning amount allocation basis. You can select a planning amount allocation basis only if you have selected the budgets and forecast data source for summarization. The following are the methods of allocating planning amounts:

- Period start date
- Period end date
- Daily proration

Note: You cannot change the planning amount allocation basis if summarized data exists.

Assume that a project includes a task for team members to undergo some product and soft skills training. A budget of $5900 is allocated to this task between 1 January 2011 and 28 February 2011. While summarizing using a monthly accounting calendar, the application can allocate the planned amount in three ways.

Period Start Date Basis Method

Allocate the entire budget of $5900 to the first period of January 2011 regardless of when the training takes place. This allocation method could impact period to date cost variance measures for January and February if the actual training costs occur in February. The period start date basis method is the default option.

Period End Date Basis Method

Allocate the entire budget of $5900 to the last period of February 2011 regardless of when the training takes place. This allocation method could impact period to date cost variance measures for January and February if the actual training costs occur in January.

Daily Proration Basis Method

Distribute the budget of $5900 equally over the entire period so that $3100 is spent in January 2011 and $2800 is spent in February 2011. The following shows how the budget is distributed:

- Allocate the total amount of $5900 and dividing it by the total number of days to arrive at the daily amount.

  ```
  Total Number of Days = 31 + 28 = 59

  Daily Amount = $5900 / 59 = $100
  ```

- Multiply daily amount by the number of days the task is active.

  ```
  Amount for January 2011 = $100 x 31 = $3100

  Amount for February 2011 = $100 x 28 = $2800
  ```

Summarizing project performance data using daily proration requires more system resources than summarizing project performance data using the period start or end date basis. To distribute plan amounts evenly across plan duration, the application creates a summarized record for each day for the affected projects and tasks in the project unit.

Using the daily proration basis method reduces the chances of impacting period to date cost variance measures for January and February.

FAQs for Manage Project Units: Performance Reporting Options

Can I specify the budgets and forecasts to include in summarization?

Certain financial plan types are included in summarization by default, while you must manually select others. Approved forecast and baseline budget versions of the following financial plan types are automatically included in summarization of project performance data:

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

Apart from the default financial plan types, you can include up to four others in summarization of project performance data.

How can I update project performance data and generate KPI values?

Project managers can use the action to update project performance data and generate KPI values from the Project Performance Dashboard. Alternatively, they can run both processes for projects they manage from the Scheduled Processes page. To update performance data for all projects in a project owning organization or business unit, the project administrator must run the Update Project Performance Data process.

Project administrators must run the Update Project Performance Data process for all projects in a project unit or business unit from the Scheduled Processes page.

Tip: Enable the option to generate KPI values automatically after updating project performance data.

Related Topics

- Performance Data Summarization: How It's Processed

What actions trigger performance data summarization?

The following actions trigger performance data summarization:

- Running the Update Project Performance Data process for a project from the Project Performance Dashboard or Projects Overview area.

- Running or scheduling the Update Project Performance Data process from the process scheduler.
- Enabling the reporting option on the project unit to summarize project data before generating key performance indicators.
- Creating revenue and invoice transactions.

Note: Summarized revenue and invoice transaction amounts appear in the revenue and invoice work area. However, these transactions don't appear in summarized data on the Project Performance Dashboard until the transactions are summarized using the Update Project Performance Data process.

What happens when I select a planning amount allocation basis for the project unit?

The **Period Start Date** and **Period End Date** options allocate amounts based on the period start and end dates. The **Daily Proration** option spreads plan amounts evenly across the plan.

40 Project Performance Reporting Configuration: Define Key Performance Indicators

Manage Trend Indicators

KPI Trends: How They're Calculated

Trend indicators show whether the trend of a key performance indicator (KPI) is favorable or unfavorable for a project. When you define KPIs you specify a value for tolerance percentage. The tolerance percentage is taken into account while calculating trend indicators for a KPI.

> **Note:** KPI trends may not be useful if KPI values are generated often. The reason is, if the tolerance percentage is 10 percent and KPI values are generated every day, the values decrease by 1 percent each day. In this scenario, no change is observed in the trend as the decrease is well within the tolerance. However, if you generate KPI values at the start and end of the month, a significant change is observed in the trend.

Settings That Affect KPI Trends

The trend indicator that appears for a KPI is based on the default set in the performance trend indicator setup. The different trend indicators available are:

- Up, favorable: The project performance trend is increasing in value and is desirable.
- Up, unfavorable: The project performance trend is increasing in value and is undesirable.
- Down, favorable: The project performance trend is decreasing in value and is desirable.
- Down, unfavorable: The project performance trend is decreasing in value and is undesirable.
- Unchanged: The project performance trend is unchanged.

You can change the sort order of the trend indicators based on how you want to sequence KPIs in a table based on the performance of KPIs in a project.

How KPI Trends Are Calculated

Trend Indicators are calculated based on the percentage increase or decrease in a KPI value, while taking into consideration the tolerance percentage specified while creating the KPI. The following example illustrates how trend indicators are calculated for a KPI.

Consider a scenario where KPI values are generated for the first time on January 15, 2011, and again on February 15 and April 15. KPI trends are calculated when there are at least two values that exist for a KPI.

KPI Values Generated on January 15, 2011

All values in the following tables are percentages unless specified otherwise.

KPI	Tolerance Percentage and Trend Indicator Setting	Current KPI Value and Status Indicator	Previous KPI Value and Status Indicator	Trend Indicator
PTD Actual Spent Labor Effort Percentage	5 Up is Favorable	70 On Track	-	-
PTD Actual Spent Equipment Effort Percentage	5 Up is Unfavorable	30 On Track	-	-
PTD Actual Invoice Amount	5 Up is Favorable	$5000 Warning	-	-
Actual Billable Cost Percentage	2 Up is Favorable	90 On Track	-	-
PTD Actual Margin Percentage	2 Up is Favorable	30 On Track	-	-

After generating KPI values on January 15, 2011, the most critical KPI is PTD Actual Invoice Amount. The overall project health status is Warning, because the most critical KPI, PTD Actual Invoice Amount, has a status of Warning.

KPI Values Generated on February 15, 2011

KPI	Tolerance Percentage and Trend Indicator Setting	Current Period KPI Value and Status Indicator	Previous Period KPI Value and Status Indicator	Trend Indicator based on Previous Period
PTD Actual Spent Labor Effort Percentage	5 Up is Favorable	71 On Track	70 On Track	Unchanged
PTD Actual Spent Equipment Effort Percentage	5 Up is Unfavorable	29 On Track	30 On Track	Unchanged
PTD Actual Invoice Amount	5 Up is Favorable	$4800 Warning	$5000 Warning	Unchanged
Actual Billable Cost Percentage	2 Up is Favorable	91 On Track	90 On Track	Unchanged
PTD Actual Margin Percentage	2 Up is Favorable	30.2 On Track	30 On Track	Unchanged

This table shows how the trend indicator is calculated based on the previous period. Although the KPI values for the current period are different from the previous period, the difference in the values is not significant enough to change the trend indicator, based on the tolerance percentage defined for each KPI. For example, the PTD Actual Spent Labor Effort Percentage is 71 percent, compared to the previous period KPI value of 70 percent. If the current period KPI value is more than 73.5 percent, which is more than 5 percent higher than the previous period, then the trend indicator is Up, Favorable. If the current period KPI value is less than 66.5 percent, which is more than 5 percent lower than the previous period, then the trend indicator is Down, Unfavorable.

The overall project health status is Warning, based on the most critical of all KPI statuses. After generating KPI values on February 15, 2011, the most critical KPI is PTD Actual Invoice Amount.

KPI Values Generated on April 15, 2011

KPI	Tolerance Percentage and Trend Indicator Setting	Current Quarter KPI Value and Status Indicator	Previous Quarter KPI Value and Status Indicator	Trend Indicator Based on Previous Quarter
PTD Actual Spent Labor Effort Percentage	5 Up is Favorable	75 On Track	71 On Track	Up, Favorable
PTD Actual Spent Equipment Effort Percentage	5 Up is Unfavorable	25 On Track	29 On Track	Down, Favorable
PTD Actual Invoice Amount	5 Up is Favorable	$3500 Critical	$4800 Warning	Down, Unfavorable
Actual Billable Cost Percentage	2 Up is Favorable	91 On Track	91 On Track	Unchanged
PTD Actual Margin Percentage	2 Up is Favorable	28.5 Warning	30.2 On Track	Down, Unfavorable

This table shows how the trend indicator is calculated based on the previous quarter. The current KPI values are compared to the latest generation date of KPIs for the previous quarter.

It is possible that the previous period trend and the previous quarter trend are calculated based on KPI values from the same generation date. This occurs when the previous period generation date is the same as the latest generation date in the previous quarter.

The first three KPI values changed enough since the previous quarter to change the trend calculator. For example, the current quarter value of PTD Actual Invoice Amount is $3,500, which exceeds the threshold tolerance of 5 percent from the previous quarter KPI value of $4,800. Therefore the KPI is in a Critical status, and the trend indicator is Down, Unfavorable. If the current quarter value is greater than $5,040, which is more than 5 percent higher than the previous quarter, then the trend indicator is Up, Favorable.

A project manager might review the KPI values, statuses, and trends shown in this table and determine that a transaction was not billed, because the KPIs that are based on revenue and invoice amounts have both dropped.

The overall project health is critical because of the status of the PTD Actual Invoice Amount.

Related Topics

- Performance Trend Indicators: Explained

FAQs for Manage Trend Indicators

Why did the trend indicator show a downward trend when KPI performance is improving?

While defining key performance indicators (KPIs), you can determine if a positive increase between the current and previous KPI value is a favorable or unfavorable trend. Therefore, an upward trend may not necessarily indicate that KPI performance is improving.

For example, for a KPI based on a non-billable percentage of total costs, a low value for non-billable costs is preferred. Hence, a downward trend is favorable.

FAQs for Manage Performance Measures

What's the difference between effort-based, amount-based, and percentage-based performance measures?

Performance measures that are based on effort hours are effort-based. Examples are, actual spent labor effort and actual spent equipment effort.

Performance measures that are based on currency values are amount-based. Examples are, actual revenue and actual raw cost.

Performance measures that are based on percentages are percentage-based. Examples are, actual margin percentage and actual nonbillable cost percentage.

Note: KPIs that are percentage-based can be tracked at the task, resource, and project levels.

What happens if I use period-to-date amount-based measures for large projects?

Period-to-date amount-based measures use the same threshold values for all phases of the project. This may result in a spike in the key performance indicator (KPI) values if the amounts used to calculate the KPI values vary widely throughout the project. To avoid this problem, consider using different sets of threshold values for amount-based KPIs defined in small and large projects.

Manage Key Performance Indicators

KPI Components: How They Work Together

A key performance indicator (KPI) enables you to define thresholds of possible values for a performance measure for any project in a project unit. During KPI definition, you associate a performance status indicator with each threshold level. When you generate KPI values, the application compares the value against the thresholds defined for the KPI. If the value falls within any of the defined threshold levels, then the application associates the status indicator of that threshold with the performance measure. The following are the KPI components we will discuss:

- Performance Measure
- Performance Status Indicator
- Threshold Level
- Trend Indicator
- Tolerance Percentage
- Project Performance Data
- Project Unit

Performance Measure

Oracle Fusion Project Performance Reporting provides both fundamental and derived measures that present an objective insight into the performance of the project. In addition, you can create custom measures to meet the unique needs of your organization. Use any delivered or custom performance measure to create a KPI.

Performance measures are available in the areas of budgets and forecasts, billing and revenue, costs, effort, margin, capitalization, and more. Following are examples of predefined performance measures:

- EAC Budget Cost (the estimate at completion burdened cost from the current baseline budget)
- ITD Forecast Revenue Variance (the inception-to-date current baseline budget revenue - current approved forecast revenue)
- Prior Period Margin Percentage Variance (the prior period current baseline budget margin percentage - actual margin percentage)

A performance measure is associated with a time dimension. The following time dimensions are available:

- Estimate-at-completion (EAC)
- Inception-to-date (ITD)
- Prior Period
- Period-to-date (PTD)
- Quarter-to-date (QTD)
- Year-to-date (YTD)

A particular performance measure set, such as Budget Cost, can have as many as six performance measures: one for each time dimension.

A performance measure can be expressed as a currency amount, as a percentage, or in time units such as hours when effort is measured. If the KPI is used on projects that use different currencies, you can enter different thresholds levels for each currency you need.

Performance Status Indicator

Performance status indicators give an immediate picture of the status of a project, such as critical, at risk, and on track. Icons with unique colors and shapes indicate the status and severity of performance. During KPI definition, you first associate status indicators with performance statuses:

- Critical
- Severe
- At risk
- On track
- Ahead

You then associate these statuses with threshold levels. When KPI values are generated for a project, each value is compared to the defined thresholds and the corresponding status indicator for the KPI appears on project performance reports.

A status can identify negative performance so that you can take the appropriate actions to prevent or quickly resolve problems. Conversely, a status can identify positive performance to help you track expected or excellent performance.

Threshold Level

During KPI definition, you define threshold levels to cover all possible values for a KPI. If a KPI value exceeds the range of values defined for the KPI threshold levels, the closest threshold is used to determine the KPI status. For example, if a KPI value falls below the lowest threshold level, the application assigns the status of the lowest threshold level to the KPI.

A status indicator can be associated with more than one threshold level. For example, both underutilization and overutilization of resources can indicate a critical performance status.

Trend Indicator

Performance trend indicators give an immediate picture of improving or worsening KPI value trends on the project. Icons with unique colors and shapes indicate whether an increasing performance trend has a positive or negative impact. For example, an increase in nonbillable costs is considered unfavorable to organizations that are able to bill costs to their clients. In this example, the performance trend indicator will show a negative impact.

Tolerance Percentage

A tolerance percentage is used to compare the previous KPI value to the current value to show if the performance trend is increasing, decreasing, or staying the same. For example, if the tolerance percentage is 10 percent for a KPI, and the difference between the previous KPI value and current value is greater than 10 percent, then the trend is increasing. If the difference is greater than -10 percent, then the trend is decreasing. If the difference is between -10 percent and 10 percent, then the trend shows no change. A single tolerance percentage value, such as 10 percent in this example, represents both negative and positive tolerances.

Project Performance Data

The application provides programs that extract and update transaction data and maintain project performance data. The process of generating KPI values uses this project performance data. Before you generate new KPI values, check the date that the project performance data was last generated to make sure that the data includes all transactions that may impact project performance results. Then decide if you must update project performance data before you generate KPI values. After you run these programs you will have a true picture of project performance.

When you generate KPI values, the period for which KPI values are being generated is determined by the KPI Period Determination Date. The data from that period is used to generate project performance data that will be populated on the project performance dashboard.

Note: KPIs that are enabled for use in the KPI definition are included when KPI values are generated.

Project Unit

KPIs are created for specific project units. During project unit implementation you specify whether KPIs are tracked for the project unit.

KPI Values: How They're Generated

Key performance indicator (KPI) values are calculated when you generate KPI values. KPI values must be generated after project data is updated.

Settings That Affect KPI Values

You must specify the following parameters:

Settings	Description
KPI Period Determination Date	Set the date used to derive the project calendar and accounting calendar periods for performance measure calculations when KPI values are generated.
Replace Current KPI Values	Replace the current KPI values with the values that are generated now.
Delete Previous KPI Values	Delete the KPI values that were generated the previous time the generate KPI values process was run.
Number of Days to Retain KPI Values	Retain KPI values for the specified number of days starting from the current date before deleting previous KPI values.

For example, assume KPI values were generated on the following dates:

KPI Period Determination Date	Generation Date
October 29, 2010	November 12, 2010
September 30, 2010	October 15, 2010

If you generate KPI values on November 18, 2010 and select to replace the current KPI values, the KPI values generated on November 12, 2010 are deleted and replaced with KPI values generated on November 18, 2010. You must select to replace the current KPI values for a given period if you want to retain one set of KPI values and review KPI values during the period.

You can also delete KPI values that are not required for reporting. The options, **Delete Previous KPI Values** and **Number of Days to Retain KPI Values**, enable you to delete KPI values that were generated prior to a specific number of days. For example, if today is November 18, and you want to remove all KPI values generated in the previous year, you must select to delete previous KPI values, and set **Number of Days to Retain KPI Values** to 322. All KPI values created since January 1, 2010 are retained and KPI values generated before that period are deleted.

Note: Don't delete previous KPI values when you're generating KPI values for the first time in a period, or if you want to see trending information for the KPIs over the life of the project.

When you generate KPI values, you can select to receive a notification by e-mail by enabling workflow notifications, once KPI values are generated.

How KPI Values Are Generated

Use the **Generate KPI Values** process to generate KPI values. KPI values are calculated based on the value of the performance measure associated with the project. When you generate KPI values, the KPI period determination date is compared to the current date to determine the period. KPI values are generated for the period based on the options in the key performance indicator definition. Only one set of key performance indicators is kept for a single KPI period determination date.

For example, KPI values are generated for a KPI period determination date of August 24 at 8:15 a.m. for Projects A and B. Then KPI values are generated for a KPI period determination date of August 24 at 10:45 a.m. just for Project B. The KPI values for Project B generated at 8:15 a.m. are deleted, but KPIs belonging to Project A are retained.

Note: To keep historical information, use a unique KPI period determination date.

Related Topics

- Calculating Current, Prior Period, and Prior Quarter KPI Values: Examples

Performance Status for Tasks and Resources: How It's Calculated

The application calculates performance status for individual tasks and resources for percentage-based key performance indicator (KPI) values.

Settings That Affect Performance Status for Tasks and Resources

When you enable the **Track by Task** and **Track by Resource** options on the project definition, a status indicator appears for the task and resource on project performance reports when the individual KPI value is not on track. Enabling this option helps you easily identify the troubled tasks and resources in a hierarchical task and resource structure in a project.

Note: You can track performance by task and resource only for KPI values that are expressed as a percentage.

How Performance Status for Tasks and Resources Are Calculated

Performance status is individually calculated for all levels of the task and resource hierarchy based on the KPI threshold definition. KPI threshold values are defined when KPIs are created. Based on the threshold values defined, the status for tasks and resources are calculated for the KPI values that are based on a percentage. This example shows how the status of tasks and resources are calculated. For example, assume that the KPI named ITD Nonbillable Cost as a Percentage of Total Cost has the following threshold definition.

Threshold Level	Threshold Range From	Threshold Range To	Status Indicator
1	-99.00%	-12.00%	Critical
2	-11.99%	-5.00%	At Risk

Threshold Level	Threshold Range From	Threshold Range To	Status Indicator
3	-4.99%	4.99%	On Track
4	5.00%	11.9%	At Risk
5	12.00%	99%	Critical

Example of System Implementation Task

In the example, we have a System Implementation task containing six subtasks.

Task	Subtask	ITD Nonbillable Cost	ITD Billable Cost	ITD Total Cost	ITD Nonbillable Cost as a Percentage of Total Cost
System Implementation		20,000	105,000	125,000	16.00%
	Planning	0	21,000	21,000	0%
	Definition	6,000	51,000	57,000	10.53%
	Build	15,000	33,000	48,000	31.25%
	Test	0	0	0	0%
	Release	0	0	0	0%
	Support	0	0	0	0%

The ITD Nonbillable Cost as a Percentage of Total Cost KPI value for the Definition task is 10.53% (6,000/57,000). Based on the threshold levels defined for this KPI, the Definition task shows the At Risk status indicator.

Example of a Consulting Resource Breakdown Structure

In another example, the Consulting resource breakdown structure contains a Labor resource. Labor is a parent to the Project Manager resource, which is a parent to resources Max Martin, Robert Altima, and Fred Jones. The ITD Nonbillable Cost as a Percentage of Total Cost KPI value for Labor is 12.97% (15,700.00/121,015.00). The ITD Nonbillable Cost as a Percentage of Total Cost KPI value for Fred Jones is 0%. Because the KPI value for each row in the hierarchical structure is calculated separately, Labor has a status indicator of Critical and Fred Jones does not have a status indicator.

Resource	Resource	Resource	Resource	ITD Nonbillable Cost	ITD Billable Cost	ITD Total Cost	ITD Nonbillable Cost as a Percentage of Total Cost
Consulting				19,776	105,315	125,091	15.81%
	Labor			15,700	105,315	121,015	12.97%
		Project Manager		15,700	50,000	65,700	23.90%
			Max Martin	2,800	14,000	16,800	16.67%
			Robert Altima	8,400	0	8,400	100.00%
			Fred Jones	0	36,000	36,000	0%

If you track tasks and resources for a project, each task and resource with a KPI value that is not on track is designated as an exception. The KPI value for the project does not impact the exception designation for individual tasks and resources. For example, if a task has a Critical status indicator based on the KPI value and threshold definition, it is designated as an exception even if the project has an On Track status indicator.

Note: Task and resource performance status is based on the latest summarized data, which may not be the same as the summarized data used to generate the latest KPI values.

Tolerance Percentage: Explained

Use tolerance percentages to compare the previous key performance indicator (KPI) value with the current value. The application calculates trend indicators based on the percentage increase or decrease in a KPI value and the tolerance percentage in the KPI definition.

Example of Tolerance Percentage

When you create a KPI, you must enter a tolerance percentage that is used to determine the trend indicator for a KPI. The percentage change in KPI value is calculated using the following formula:

```
Percentage Change in KPI Value = absolute value of (Current Value - Previous Value*100 / Previous Value)
```

The following example illustrates how the tolerance percentage is used to calculate the trend indicator.

KPI	Tolerance Percentage and Trend Indicator Setting	Current Period KPI Value and Status Indicator	Previous Period KPI Value and Status Indicator	Percentage Change	Trend Indicator Based on Previous Period
PTD Actual Invoice Amount	5 percent Up is Favorable	$3500 Critical	$4800 Warning	27 percent	Down, Unfavorable

KPI	Tolerance Percentage and Trend Indicator Setting	Current Period KPI Value and Status Indicator	Previous Period KPI Value and Status Indicator	Percentage Change	Trend Indicator Based on Previous Period
PTD Actual Spent Labor Effort Percentage	5 Up is Favorable	75 On Track	71 On Track	5.6 percent	Up, Favorable
PTD Actual Margin Percentage	2 percent Up is Favorable	28.5 percent Warning	30.2 percent On Track	5.6 percent	Down, Unfavorable

KPI Threshold Levels with Different Currencies: Explained

You can set up different threshold ranges for each currency for currency-based KPIs to ensure that the thresholds apply for a particular currency amount.

Example of Threshold Levels with Different Currencies

The following example describes setting up of different threshold levels for each currency.

Vision Corporation sells and installs human resource software. A standard KPI used for installation projects is Period-to-Date (PTD) Invoice Amount. Projects are executed in different countries having different project and ledger currencies, such as United States dollars (USD), Japanese yen (JPY), and Indian rupees (INR).

The PTD invoice amount for projects with a ledger currency of USD is critical if the value is between 0 and 3,000 USD. The PTD invoice amount for projects with a ledger currency of INR is critical if the value is between 0 and 50,000 INR. The currency thresholds are independent of currency conversion.

FAQs for Manage Key Performance Indicators

What's the difference between key performance indicator and performance measure?

Key performance indicators (KPIs) measure how well an organization or individual performs an operational, tactical, or strategic activity that is critical for the current and future success of the organization. Examples are: Period-to-Date (PTD) Actual Spent Labor Effort Percentage, PTD Actual Spent Equipment Effort Percentage, and PTD Actual Margin Percentage.

Performance measures are singular data elements defined by a specific account, scenario, and time dimension combination. For example, the performance measure, Quarter-to-Date (QTD) Forecast Labor Effort, references the account of labor hours, in the scenario of primary forecast, and the quarter-to-date time dimension.

A KPI is created based on a performance measure, and specifies how a performance measure value is interpreted using threshold levels. For example, the KPI PTD Actual Spent Equipment Effort is based on the measure actual spent equipment effort.

What's the difference between key performance indicator and KPI category?

Key performance indicators (KPIs) measure how well an organization or individual performs an operational, tactical, or strategic activity that is critical for the current and future success of the organization. Examples are: Period-to-Date (PTD) Actual Spent Labor Effort Percentage, PTD Actual Spent Equipment Effort Percentage, and PTD Actual Margin Percentage.

A KPI category is a group of KPIs that belong to a specific performance area. Examples are: cost, profitability, financial, and schedule.

From the examples above, PTD Actual Margin Percentage must be in the KPI category of profitability.

What's a KPI period determination date?

Date used to determine the accounting calendar and project accounting calendar periods for performance measure calculations during key performance indicator (KPI) value generation.

For example, assume that your project uses a monthly accounting calendar and a weekly project accounting calendar. You generate KPI values on December 8, 2010 with a KPI period determination date of November 30, 2010. The current period for KPI generation is determined based on the type of calendar used. In the accounting calendar, the date November 30, 2010 falls into the November 2010 period. In the project accounting calendar, November 30, 2010 falls in the first week of December 2010.

Note: The KPI period determination date must be a date in the past.

Why can't I create or edit a key performance indicator for a project unit?

Since the project unit is not enabled to track key performance indicators.

What happens if I attach different KPIs to a project for the same measure?

Overall project health is based on the most severe KPI status even if you have more than one KPI using the same performance measure.

For example, a Financial category contains three KPIs, and two of those KPIs use the same performance measure with two different threshold definitions. The overall project health is critical in both of these scenarios:

- The KPI status is critical and on track for the two KPIs that use the same performance measure, and the KPI status is on track for the third KPI.
- The KPI status is on track for the two KPIs that use the same performance measure, and is critical for the third KPI.

Can I track KPI values at the task and resource level?

Yes, you can track key performance indicators that have a percentage measure format at task and resource levels for a project.

What happens if a KPI value exceeds the threshold limits defined for the KPI?

An up or down arrow appears in the **Exceeds Threshold** column of the **KPI History** table, and the closest threshold is used to determine the key performance indicators (KPIs) status. If KPI values fall outside the threshold ranges, consider extending the upper and lower threshold ranges.

Where do the currency type options for a key performance indicator come from?

The currency type appears for a selection only if the currency type is enabled for summarization for the project unit.

Where do the calendar type options for a key performance indicator come from?

The calendar type appears for a selection only if the calendar type is enabled for summarization for the project unit.

How can I evaluate project performance if KPIs are not tracked?

You must use the **Review Project Performance** page to perform more detailed financial performance analysis for a project than is possible on the **Project Performance Dashboard**. You can review amounts at the task or resource level, and drill down to individual expenditure items.

41 Project Performance Reporting Configuration: FAQs for Define Region Personalization

Can I choose the regions to appear on Project Performance Reporting dashboard?

Yes. Select the **Edit Current Page** link in the **Personalization** menu to show or hide regions. You can also modify the arrangement of the region layouts using the **Change Layout** option.

42 Manage Project Templates

Expenditure Item Chargeable Status: How It's Determined

Oracle Fusion Project Costing checks all levels of chargeable controls when you try to charge a transaction to a project. The application checks the chargeable status when you enter a new cost transaction or transfer expenditure items to another project or task, and you save the record.

Settings That Affect Chargeable Status

Use the exclusive and inclusive transaction control options to set the chargeable status for all expenditures charged to the project.

Inclusive transaction controls prevent all charges to a project or task except the charges you specifically allow. Specify the types of expenditures that you want to allow, and enable the **Chargeable** option.

By default, exclusive transaction controls allow all charges to a project or task. Specify the types of expenditures that you don't want charged to the project or task.

How Chargeable Status Is Determined

The following illustration shows the steps that Project Costing uses to determine the chargeable status of an expenditure item.

If the inclusive option is selected and applicable transaction controls don't exist, then the transaction isn't chargeable. If applicable controls exist, then the application checks whether the transaction controls allow charges.

If the exclusive option is selected and there are no applicable controls, then the transaction is chargeable. If applicable controls exist, then the application checks whether the transaction controls allow charges.

For both inclusive and exclusive transaction controls, a transaction is chargeable if the **Chargeable** check box is enabled for an applicable control. If the **Chargeable** check box isn't enabled, then the transaction isn't chargeable.

Spaces: How They Work With Projects

Spaces provide an online location and collection of tools for teams to work together more effectively on documents.

If project spaces are enabled, project team members copied from the source project template or source project are added to the project and project space. New project team members are automatically added to the project space. Optionally, you can change project space roles or remove members from the space.

Role Mappings

The project manager is assigned to the Moderator role in the project space. All other project team members are assigned to the project space as Participants.

Project Quick Entry: Explained

You can configure quick entry fields while defining a project template. Oracle Fusion Project Portfolio Management prompts you to enter information in quick entry fields when you create new projects from the template.

Quick Entry Fields

Select quick entry fields for project information that you want to enter (instead of accepting the template default) each time you create a project. The following table describes the quick entry fields on a project template.

Name	Description
Field Name	The field to display in the **Project Details** when creating a new project.

Specification	Enter a specification for the following fields:
	• Classification
	  ○ Select the class category to use for the classification.
	• Team Member
	  ○ Select the project role to use for the team member.

Prompt	Text for a field that appears only in the Project Details while you're creating a new project. The prompt field name isn't displayed after you create the project.

Name	Description
	For example, if you want to add a quick entry field for the project start date, update the prompt that appears during project creation to **Enter the project start date**. However the field in the project for all other pages will remain as Project Start Date.
Required	Choose whether you want to require entry for the field. **Note:** The **Legal Entity**, **Organization**, **Project Name**, and **Project Number** fields are required on all projects, and can't be optional quick entry fields.

The following table describes limitations for quick entry fields.

Field Name	Quick Entry Maximum
Classification	20
Partner organization	5
Project customer	5
Supplier organization	5
Team member	15 You can allow entry of more than one team member per role for all roles except Project Manager. You can enter only one project manager for a project.

After creating the project, you can add further values to the fields in the project.

Summarized Financial Plan Types: Explained

Summarized financial plan types are financial plan types whose previous and current approved versions (for forecasts) or original and current baseline versions (for budgets) are used in summarization of project performance data.

Particular financial plan types are included in summarization by default, while you must manually select others.

Default Financial Plan Types

Approved forecast and baseline budget versions of the following financial plan types are automatically included in summarization of project performance data:

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast

- Primary Cost Forecast

A budget or forecast financial plan type may support both cost and revenue in one version.

User-Selected Financial Plan Types

Apart from the default financial plan types, you can include up to four others in summarization of project performance data.

Tip: You can include a financial plan type before it's used on a project for creating a version.

You can replace a user-selected financial plan type until project performance data is summarized for reporting. After that, you can only disable the financial plan type to exclude it from further summarization.

Related Topics

- Performance Data Summarization: How It's Processed

Transaction Controls: Explained

Define transaction controls to specify the types of transactions that are chargeable or nonchargeable for projects and tasks. Use transaction controls to configure your projects and tasks to allow only charges that you expect or plan. You can also define which items are billable and nonbillable on your projects that are enabled for billing. For capital projects, you can define which items are capitalizable and noncapitalizable.

You create transaction controls by configuring the following components:

- Expenditure category
- Expenditure type
- Nonlabor resource
- Person
- Job and organization for the person
- Person type
- Chargeable status
- Billable or Capitalizable status
- From and To dates

You can create any combination of transaction controls that you want. For example, you can create a transaction control for a specific person and expenditure type, or you can create a combination for a person, expenditure type, and nonlabor resource. You also specify the date range to which each transaction control applies. If you don't enter transaction controls, you can charge expenditure items from any person, expenditure category, expenditure type, and nonlabor resource to all lowest tasks on the project.

Chargeable Status

You can further control charges for each transaction control record by specifying whether to allow charges. The default value is to allow charges.

You usually select Chargeable when you're using inclusive transaction controls. For example, if you want to allow people to charge only labor to your project, you define a transaction control with the Labor expenditure category, and allow charges to the project or task.

You usually don't select Chargeable when you're using exclusive transaction controls because exclusive transaction controls list the exceptions to chargeable transactions.

System Person Type

You can use this control to specify whether transactions incurred by employees, contingent workers (contractors), or both are chargeable.

The validation rules for system person type controls are described in the following table.

Transaction Control Type	System Person Type	Validation Rule
Inclusive	No value	Transactions incurred by employees and contingent workers aren't chargeable.
Inclusive	Employee	Only transactions incurred by employees are chargeable.
Inclusive	Contingent worker	Only transactions incurred by contingent workers are chargeable.
Exclusive	No value	Transactions incurred by employees and contingent workers aren't chargeable.
Exclusive	Employee	Transactions incurred by employees aren't chargeable.
Exclusive	Contingent worker	Transactions incurred by contingent workers aren't chargeable.

Billable and Capitalizable Status

You can define billable transactions for billable projects and capitalizable transactions for capital projects by selecting the billable or capitalizable option. You can choose between the options of **No** and**Task Level**. Select **No** if you want the charges to be nonbillable or noncapitalizable. Select **Task Level** if you want the billable or capitalizable status to use the value from the task to which the item is charged.

You define the billable or capitalizable status for a task in the **Task Details** section.

Note: The billable or capitalizable status of an individual transaction takes precedence over the billable or capitalizable status of a task.

From and To Dates

You can define transactions as chargeable for a date range by entering a From Date and To Date for each transaction control record.

Using Class Categories: Examples

Class categories and class codes enable you to classify projects. The following example illustrates how you can use project classifications.

Scenario

InFusion Corporation designs and implements heavy engineering projects for government and private customers. Because InFusion Corporation maintains a diverse portfolio of contracts, the ability to track sector and funding is very important to corporate management.

Therefore, the organization classifies projects by market sector and funding source. The following table describes the two class categories used.

Class Category	Assign to All Projects	One Class Code per Project	Enter Percentage for Class Codes	Description
Market Sector	Yes	Yes	No	Market sector in which project work takes place. A single class code must be provided on the project for the class category.
Funding Source	Yes	No	Yes	Source of funding for project. At least one class code must be provided on the project for the class category. Percentages must be provided to indicate contribution for each source.

The following table describes the class codes available for the categories specified above.

Class Category	Class Code	Description
Funding Source	Private	Project funded by private organizations
Funding Source	Federal	Project funded by the federal government

Class Category	Class Code	Description
Funding Source	State or Local	Project funded by a state or local government
Funding Source	Foreign	Project funded by a foreign government
Market Sector	Utilities	Project involves utility or power plant construction
Market Sector	Waste	Project involves waste disposal or recycling facility constructions
Market Sector	Mechanical	Project involves mechanical design and engineering work
Market Sector	Structural	Project involves structural design and engineering work

InFusion management can easily assess projects based on the above class categories and codes.

For example, you specify a class category Funding Source on your project. With this category, you select two class codes: Private and Federal. If you assign 30 percent to Private and 70 percent to Federal, then you indicate the proportion of funding received for your project from the two sources.

On the other hand, because you must select a single market sector, you indicate whether project work involves utilities, waste, mechanical, or structural activities.

FAQs for Manage Project Templates

Can I override the billable status of an expenditure item?

Yes. You can override the billable status of an expenditure item in the Edit Invoice page or in the Manage Project Costs page.

How are project space roles mapped to project resources?

The application automatically assigns each project resource to a project space role on the associated project space. The project manager is assigned the role of project space moderator. All other project resources are project space participants.

Project space moderators can manually add additional participants or modify participant access, if required.

43 Define Grants Management Configuration

Define Grants Management Configuration: Overview

Configure Oracle Fusion Grants Management to create and maintain awards, award funding, and award projects. Define the following award objects and use them when you create and manage awards:

Award Objects	Description
Audit Types	Types of audit performed on the award, for example financial audit. Define audit types and use them when you create and define an institution, so that you can perform the audit of programs.
Award Purpose Codes	Purposes or reasons for which the award is created, for example research or clinical trial.
Award Types	Awards are classified into the following award types: • Federal • Grants • Private grants When you create an award, you specify the award type.
Institution Contact Official Types	Create and use official types to classify institution contacts as per their role in the institution or organization, for example Dean or Provost.
Keywords	Track an award by subject category. Create keywords and associate them with awards or award projects or personnel.
Reference Types	Used to create references for an award or award project for identification purposes. For example, proposal numbers serve as a reference to the award or award project.
Certifications	Required for awards and award projects to comply with regulatory requirements, such as the use of nonhazardous equipment or provision of a smoke-free environment, to receive federal funding.
Terms and Conditions	The grantor specifies terms and conditions as written stipulations in an agreement or contract that the grantee is obligated to conform.
CFDA Programs	A database of all federal programs that are made available to organizations in USA. Import or create CFDA programs and associate with awards.
Grants Personnel	Add HCM persons to grants personnel and allocate them to manage awards. Review personnel details such as primary job and organization, and contact details. Indicate if the person has completed the conflict of interest review and the certified date.
Sponsors	Customer organizations which grant funding to the award and award projects.

Award Objects	Description
Institutions	A higher-level internal body which receives grants or awards to conduct research or studies. Create institutions and specify locations, references, and contact details.

Note: You can't delete any of the award objects when used by an award, award project, sponsor, or award template.

Award templates have features common in the awards you want to create. You can define award templates and configure various objects of an award and use the template when you create awards.

You must provide grants management and award contract attributes at the business unit level. Specify the attributes for processing financial transactions of an award and award project in the business unit. The default billing attributes are sent to the contract bill plan for billing purposes. Provide burn rate indicator percentage ranges to indicate the spending limits for award projects.

Institution: Explained

An institution is a higher-level internal body that receives grants or awards to conduct research or studies. For example, a university or a hospital receives funding from an agency to conduct research and studies.

Provide the name of the parent institution to which the current institution reports. The institution follows a one-directional hierarchy.

Specify the DUNS Number, NIH IPF number, DHHS Entity number.

When you define an institution, you must specify the following aspects:

- General Details
- Contacts
- Compliance
- Audits and Alerts

General Details

You must define locations and references to an institution. Some of the key attributes are explained in the following table:

Attributes	Details
Location	Specify one or more locations for an institution. Indicate if the location is: • An award location that issues invoices to sponsors. • A billing location that receives awards. An institution must have one primary location. The primary location is specified in the Federal Financial report.
References	Provide a reference for the institution for identification purposes, for example, Research Center or Hospital.

Attributes	Details
Additional Information	Use the Institution flexfield (name of the flexfield) to capture and track institution attributes that are specific to your organization in the Additional Information region.

Contacts

A contact can have multiple official type roles. For example, Dean, Department administrator, Department head are a few roles for official type. Evaluate processes when requested by sponsors and issue certifications. You can carry out various audits for the institution and resolve audit alerts.

Compliance

Capture and manage compliance information of an institution. Provide certification details such as the name, certification period, validity, sponsor who is requiring certification, and relevant external reference number that a compliance committee supplies.

Audits and Alerts

An institution performs an audit of the programs. Capture and manage audit information. Add audit type programs and specify the program details such as program name, program period, validity, sponsor, auditor, and audit report number.

Grants Sponsors: Explained

Customer organizations from Oracle Fusion Trade Community Architecture are added as sponsors for grants management. The grants sponsor funds research projects. When you add a sponsor, a funding source record is created indicating that the sponsor is an external funding source.

Note: Ensure that customers exist in the environment before you add sponsors in grants management.

Internal sponsors can fund an award internally as internal funding sources, for example, university departments. They fund the research work, if an award is enabled for cost sharing.

General Details

You can specify a burden schedule when you define the general details of the sponsor. The burden schedule specified at the sponsor level becomes the default burden schedule of the award, provided the award created from an award template, which has not specified a burden schedule.

You can add references to the sponsor for identification purpose, for example, Industry Type, such as State Government or Local Government.

Billing Details

You must specify the billing details for sponsor. Provide the sponsor account number, which identifies sponsor bill-to and ship-to information. Specify if the sponsor is a federal sponsor and if funding is through a letter of credit.

When the sponsor uses a letter of credit, you must specify the billing sponsor and LOC number. You can use the current sponsor as the bill-to sponsor, or you can specify a related sponsor as the bill-to sponsor. Ensure that the related sponsor is associated with a sponsor in Oracle Fusion Receivables, and that a customer relationship exists between the two sponsors.

When you specify the related sponsor name and account number, the LOC number of the parent or related sponsor is displayed in the Create Sponsor page.

Use the Manage Customers page to specify a relationship between the bill-to customer accounts. You must ensure that the relationship is valid, active, and the bill-to indicator is enabled.

For example, for the NIH customer account, the related customer account is DHHS with a bill-to relationship.

Creating a Grants Customer: Procedure

Create a Grants customer to enable a sponsor in the Awards work area.

Creating a Customer

Complete the following steps to create a customer:

1. Navigate to the Setup and Maintenance work area.
2. Search for and select the **Manage Customers** task.
3. On the Manage Customers page, click the **Create** icon.
4. On the Create Organization Customer page, enter the required information in the Account Address section.

   Note: The information in the Account Address section must match the information defined for Customer Account Site in the Manage Set Assignments for the Business Unit section.

5. In the Address Purposes section, click the **Add Row** icon to enter the bill-to contact details in the Bill-to Site column.
6. Click **Save and Close**.

   Note: If you want to enter additional accounts for a customer, click the **Create** icon in the Accounts section of the Manage Customers page.

7. To add a bill-to contact to the account, on the Manage Customers page, click the **Account Number** of the customer that you created.
8. On the Edit Account page, click the **Communication** tab, then click **Edit Contacts**.
9. On the Edit Contacts page, click the **Create Contact** icon.
10. In the Create Contact window, enter the details of the contact, select **Role Type** as Contact, then click **OK**.
11. Click the **Set Primary Contact** icon to set this contact as a primary contact.
12. In the Account Contact Responsibilities section, click the **Add Row** icon.
13. Select **Bill to** in the Responsibility Type field, then click the **Set Primary Responsibility** icon to mark this as the primary responsibility type.

14. Click **Save and Close**.
15. To add a profile at the Account level, on the Edit Account page, click the **Profile History** tab.
16. Ensure that the effective start and end dates are valid for the default profile class. In this example, the date "12/31/12" refers to "December 31, 4712".
17. From the Actions menu in the Profile History section, click **Correct Record**.
18. In the Payment Terms field in the Terms section, select the required payment term.
19. Click **Save and Close**.
20. To add a profile at the Site level, in the Sites section on the Manage Customers page, click the first **Site Number**.
21. Click the **Profile History** tab, then click **Create Site Profile** .
22. Ensure that the required Payment Terms is selected, then click **Save and Close**.

Defining Customer Account Relationships

Complete the following steps to define customer account relationships:

1. To add a relationship between the customer accounts, in the Accounts section on the Manage Customers page, click the **Account Number** of the customer.

   Note: This relationship will be used through the Manage Sponsors task for creating the related sponsors.

2. Click the **Relationships** tab, then click the **Create** icon.
3. In the Create Customer Account Relationship window, enter the Related Account number. This should be the Account Number of another customer, so that a relationship is created between the two customers.
4. Set Bill to as the intended relationship, then click **Account Relationship Set**, then click **OK**.
5. Click **Save and Close**.

Verifying the Set Assignment

Complete the following steps to verify the set assignment:

1. Navigate to the Setup and Maintenance work area.
2. Search for and select the **Manage Business Unit** task.
3. On the Manage Business Units page, search for and select the business unit in the search results.
4. From the Actions menu, click **Manage Set Assignments** to view the set assignments for the selected business unit.
5. On the Manage Set Assignments page, ensure that the reference data sets are provided for the Customer Account Relationship and Customer Account Site.
6. Click **Save and Close**.
7. Click **Done**.

Grants Management Business Unit Implementation Options: Critical Choices

Define default award and billing attributes and set the burn rate indicators for a grants management business unit on the Manage Grants Business Unit Implementation Options page in the Setup and Maintenance work area.

Default Award Attributes

The default award attributes are used to process the financial transactions for awards and award projects within the business unit.

Default Award Attributes	Description
Institution	Institution that receives grants or awards to conduct research or studies.
Contract Type	Contract types of the Grant contract class are available for award creation.
Burden Schedule	The default burden schedule for the award, if the sponsor didn't specify a burden schedule. However, you can change the burden schedule when you define the award.
Days to Close	Number of days after the award end date. Use this time to manage award expenses incurred until the close date.

Default Billing Attributes

The billing attributes you specify are sent to the contract bill plan for billing purposes. Some of the key attributes are explained in the following table:

Default Billing Attributes	Details
Invoice Method	A set of rules, based on rates and cost reimbursable schedule types, that calculate invoice amounts for the bill plan that is associated with the contract line on the associated project.
Revenue Method	A set of rules, based on rates and cost reimbursable schedule types, that calculate revenue amounts for the revenue plan that is associated with the contract line on the associated project.
Billing Cycle	Represents the frequency at which invoices are created for this bill plan.
Labor Format	Labor format to group labor items on an invoice line. Labor format includes the source of columns, text, and layout.
Nonlabor Format	Nonlabor format to group nonlabor items on an invoice line. It includes the source of columns, text, and layout.
Event Format	Format to group events on an invoice line. It includes columns, text, and layout.

Burn Rate Indicators

The burn rate indicator percentage ranges indicate the spending limits for award projects. You can use the default values specified in the application or set the required threshold limits.

Burn Rate Indicators	Details	Default Value Range
Underspending	A value to indicate the budget amount assigned to the award project is below the minimum threshold.	-999.00 to 50
Overspending	A value to indicate the budget amount assigned to the award project has reached a maximum threshold.	101 to 999
On Track	A value to indicate the budget amount assigned to the award project is within threshold limits.	51 to 100

Related Topics

- How do you determine the overspending and underspending limits?

Setting Sales Cloud Business Unit Profile Options: Procedure

To enable multiple business units (BUs) in Oracle Sales Cloud, you must set the two profile options discussed in this topic.

The two profile options are:

- Multiple Business Units Enabled (HZ_ENABLE_MULTIPLE_BU_CRM): Set this profile option to Yes. The default value is No.
- Customer Relationship Management Business Unit Default (HZ_DEFAULT_BU_CRM): Set this to the default Sales Cloud business unit.

Use the following procedure to set the profile options.

1. Sign in as a setup user and navigate to the **Sales** implementation project in the Setup and Maintenance work area.
2. Within the implementation project, click the **Setup** button.
3. Search for and select the task, Manage Common CRM Business Unit Profile Options.

   The Manage Common CRM Business Unit Profile Options page shows the two profile options.
4. Select the HZ_ENABLE_MULTIPLE_BU_CRM profile option and set it to Yes.
5. Click **Save and Close**.
6. Select the HZ_DEFAULT_BU_CRM profile option and set it to the default Sales Cloud business unit.
7. Click **Save and Close**.

Related Topics

- Business Units: Overview
- Multiple Business Units in Sales Cloud: Overview
- Associating Resource Organizations With Multiple Business Units: Procedure
- Multiple Business Units High-Level Setup Steps

FAQs for Define Grants Management Configuration

How can I get access to a business unit to create an award and contract?

When you create an award, you automatically create a contract. To create contracts, you must be defined as a resource with the Contract Administrator role in the same business unit as the contract.

Your implementation administrator adds you as a resource for contracts in the Setup and Maintenance work area. Open the Manage Resources task and create a resource. Search for the person, then add the person as a resource. Select the Contract Administrator role and add an organization that's mapped to the contracts business unit.

How can I define the grants personnel?

Add HCM personnel to grants personnel and review details such as primary job and organization, and contact details. You can define the person as a principal investigator. If a conflict of interest exists, then indicate if the person has completed the review and the certified date. You can track the persons by associating keywords to them.

Use the Award Personnel flexfield to capture and track personnel attributes that are specific to your organization in the Additional Information region of the **Manage Grants Personnel** page.

How can I define the budget periods in an award template?

Define budget periods in award templates so that when you create an award from an award template, budget periods are created based on the award template budget period definition.

Open the Manage Award Templates task in the Setup and Maintenance work area, and create award templates from Manage Award Templates page.

Specify the following attributes to define the budget periods in award templates:

- Number of budget periods (The frequency of a budget period is yearly)
- Provide a prefix to the budget period name; for example: FY
- Select a hyphen or slash to separate the prefix and budget period name. Select None if you don't want a separator.
- Indicate the year in YYYY or YY format.

What's an institution audit?

A rigorous, organization-wide examination carried out by an institution for expending federal funds and grants. The audit is typically performed by an independent body encompassing on the financial and compliance aspects. The audit's objective is to provide assurance to federal government about the using the grants.

In the Setup and Maintenance work area, open the Manage Institutions task. When you create an institution, select the **Audit** tab, and specify the audit type, coverage details such as the sponsor, auditor, date range, and the report. You can't add an audit type that is already associated to the institution for a specified date range.

An auditor issues alerts if any gaps are found. The resolution official works through the alerts and resolves them.

Why can't I delete this institution?

You can't delete an institution if it is used by a business unit or an award. Additionally, if contacts or certifications or audits exist for an institution, then you cannot delete an institution.

How do I define the financial plan type to create an award project budget?

Define the financial plan type to create approved cost budgets for award projects by selecting the following options:

- Set the financial plan type as the default award financial plan type
- Enable the financial plan type for budgetary controls

Don't enable workflow approval for the financial plan type.

44 Define Subledger Accounting Rules

Manage Account Rules

Account Rules: Explained

Account rules are used to determine the accounts for subledger journal entry lines. In addition, you can specify the conditions under which these rules apply. Using these capabilities, you can develop complex rules for defining accounts under different circumstances to meet your specific requirements. You can define account rules for an account, segment, or value set.

Account Rules by Account

Define account rules by account to determine the entire account combination. For example, an account rule defined by account can be used to determine the complete supplier liability account in Oracle Fusion Payables.

Account Rules by Segment

Define segment rules to derive a specific segment of the general ledger account. For example, a particular segment like the company segment can be determined from the distribution account.

Another segment can be determined with the use of a constant value. Creating the account one segment at a time offers greater flexibility, but also requires more setup.

Use both segment based and account based rules to derive a single account. Segment-specific rules are used, where they are defined, and take the remaining values from an account-based rule. For example, you can select an account rule which is for all segments and also separately select a rule which is for one particular segment. Segment-specific rules take precedence over the all segments account based rule.

Combine account rules with segment rules. In this case, the segment value is derived from the segment rule to override the corresponding segment of the account. If the segment rule has conditions associated with the priorities and none are met, no override occurs and the segment value is derived from the account rule.

Note:

- If the returned account is end dated with a date that is the same or before the subledger journal entry accounting date, and an alternate account is defined in the general ledger, the alternate account is used. The original account is stored on the journal line for audit purposes
- If the alternate account is invalid, and the **Post Invalid Accounts to Suspense Account** option is selected in the Create Accounting process, then a suspense account is used. An error message is displayed if a valid suspense account is not available.

Account Rules by Value Sets

In the absence of a chart of accounts, you may define account rules based upon value sets. This enables you to share the same rule between more than one chart of accounts if the segments in these charts of accounts share the same value set.

Sharing Account Rules across Applications

You may share account rules across applications in the following ways.

- Assign an account rule from the same or a different application to a journal line rule in the subledger journal entry rule set. For example, to derive an expense account for journal line rule Expense, assign the Projects Cost Account rule owned to the Payables journal line rule Expense.
- Create an account rule based on an account rule from another application and assign it to a journal line rule. For example, you may create an account rule Invoice Expense Account referencing Project Cost Account assigned in the Priorities region. You may attach the Invoice Expense Account rule to the journal line rule Expense in the journal entry rule set.

Note:

- To share an account rule across applications, all sources used by the account rule must be available for the event class.
- If the sources are available, an account rule is assigned to a journal line rule in the journal entry rule set. Verification occurs to confirm that all sources used by the account rule are available for the journal line rule accounting event class. Journal line rules are only available if the sources are shared; such as reference objects.

Account Rules and Mapping Sets

Mapping sets can be used to associate a specific output value for an account or segment. You can use mapping sets in account rules to build the account.

Account Rules Conditions

In the account rules you may specify conditions for each rule detail line. Priorities determine the order in which account rule conditions are examined. When the condition is met, the rule associated with that priority is used. Depending on which of the defined conditions is met, a different account rule detail is employed to create the account.

The Create Accounting process evaluates conditions based on the priority of the rule detail. When the condition is met, the rule detail is applied.

Creating Account Rules: Points to Consider

You can define an account rule using the following rule types:

- Account combination
- Segment
- Value Set

Account Combination Rules

Set up account combination rules based upon the following value types:

1. Source Value Type: Derive the account combination by specifying a source.

   Sources that have been set up as accounts can be assigned to an account combination rule. Subledger Accounting then obtains the account combination identifier from the source.
2. Constant Value Type: Establish the account as a constant value.

For example, the constant could be a completed account combination from the chart of accounts specified. An example is the account combination, 01.000.2210.0000.000. This is the simplest way to derive an account.

3. Mapping Set Value Type: Derive the account combination by referencing a mapping set.

   Set up a mapping set to determine the complete account combination from the chart of accounts specified.

4. Account Rule Value Type: Derive the account by referencing another account rule.

   The chart of accounts is optional when defining this type of rule. If the account rule has a chart of accounts assigned, then all the related account rules must use the same or no chart of accounts.

Note: A chart of accounts must be specified for account combination rules using constants.

Segment Rules

Set up segment rules as follows:

- When a chart of accounts is specified, create a rule to derive the value for a specific segment from the chart of accounts.
- If the chart of accounts is not specified, create a rule to derive the value for an account segment with a specific qualifier.

Set up segment rules using the same methods discussed in the preceding Account Combination Rules section. By specifying different value types, users can select the way in which the segment value is derived.

Note: A chart of accounts must be specified for segment rules using constants.

Value Set Rules

Value set based rules can be created when a chart of accounts is not specified, enabling you to share the same rule between more than one chart of accounts. But, only if the segments in these charts of accounts share the same value set.

Set up value set based rules using the same methods discussed in the preceding Account Combination Rules section.

Manage Journal Line Rules

Journal Line Rules: Explained

Journal line rules are defined within the context of accounting event classes. A journal line rule can be used in a subledger journal entry rule set that has the same event class. You may also assign conditions to the journal line rule.

Journal Line Rules

Journal line rules are assigned to journal entry rule sets.

To create a journal line rule, select values for options such as:

- Side (Debit, Credit, Gain or Loss)

  For example, when an Oracle Fusion Payables invoice is generated, the liability account should normally be credited. The journal line rule must therefore specify the Side option as Credit. On the other hand, the payment of the

Payables invoice must be accounted with a debit to the liability account. A separate journal line rule must be defined to create this debit line.

- Merge Matching Lines: To summarize subledger journal entry lines within each subledger entry. Journal entry lines with matching criteria are merged.
- Accounting Class
  - Select an accounting class to classify journal entry lines.
  - For example, when a validated Payables invoice is accounted, the Item Expense and Liability journal lines are created. In this case, the journal line rules used in the accounting rules are assigned Item Expense and Liability accounting classes respectively.
- Conditions: To restrict the use of a journal line rule by controlling when a particular journal line rule is used by the Create Accounting process.
- Accounting Attributes: When creating a journal line rule, accounting attribute assignments are automatically established based on the default accounting attribute assignments for that journal line rule's accounting event class. You can override this default mapping of standard sources to accounting attributes. The list of values for the source override includes all sources assigned to the accounting attribute for the event class associated with the journal line rule.
- Advanced Options
  - The Subledger Gain or Less Option: Applies only to amount calculations for the primary ledger. Gain or loss amounts are not converted to reporting currency or nonvaluation method secondary ledgers. If the option is selected, the journal line holds the gain or loss amounts calculated by the subledger.

    The gain or loss amount is calculated as the difference in applied amounts due to fluctuations in conversion rates, based upon conversion to the ledger currency. Foreign exchange gain or loss amounts occur when two related transactions, such as an invoice and its payment, are entered in a currency other than the ledger currency, and the conversion rate fluctuates between the times that the two are accounted.
  - The Rounding Class Option: Along with transaction rounding, groups journal lines together and calculates transaction rounding. Subledger transaction rounding differences can occur when a transaction has multiple-related applied-to transactions, such as a Receivables invoice that has multiple associated receipts.
  - The Link Journal Lines Option: Determines whether the journal line rule is set up to establish a link between the accounting of transactions that are related both within the same application, and across applications. The alternatives are described in this table:

Link Journal Lines Option	Description
None	No link is established.
Copy from corresponding line	Build account for a journal line using segments from the offsetting entry of the current journal line. For example, when the business process requires that a cost center incurring an expense must also bear the invoice liability and cash outlay.
Business flow	Link logically related business transactions. For example, when recording the closing of a loan, you can link to the account that was used to book the loan origination. Journal line rules that are linked must also be assigned the same business flow class.

Defining Conditions for Journal Line Rules

You may set conditions to specify whether the journal line rule are used to create a subledger journal entry line. If the conditions are true, the line rule is used to create a subledger journal entry line. Use sources to create these conditions.

For example, you can set up a condition that creates a journal line to record tax, only if there is tax for an invoice. The line type and account class mentioned here are examples of sources.

- The condition for a Payables invoice tax journal line rule could be:
  - Where Line Type = Tax
  - When this condition is true, there is tax for a payables invoice line. A journal entry line is created to record the accounting impact of the tax.
- Similarly, the condition for an invoice tax journal line rule could be:
  - Where Account Class = Tax
  - In this case, if there is an account class of Tax, the journal line is used to record the accounting impact of the tax.

Another example is a condition that creates a journal line for freight when there are freight charges on an invoice.

Journal line rule conditions determine whether a journal line rule and its associated account rules and description rules, are used to create the subledger journal entry line.

Note: Constant values that are used in any Conditions region must not contain the following characters:

- "
- ,
- &
- |
- (
-)
- '

For example, in the condition "Project Type" = ABC (123), the constant value following the equal sign, ABC (123), contains restricted characters ( ) that enclose 123 and is invalid.

Manage Description Rules

Creating Description Rules: Explained

Use descriptions rules to define the elements of a description that appears on the subledger journal entry at the header or the line. The definition determines both the content and sequence in which the elements of the description appear. You can assign a condition to a description rule to determine that the description is selected for display if the condition is satisfied.

Description Rule Definition

A description rule can be defined with combinations of source and literal values. If sources are used in the rule, the accounting event class associated with the sources determines in which subledger journal entry rule set the description rule can be selected and used.

Build descriptions using the available sources for the application.

The following is the description details that have been entered, using a literal and a source:

- Loan Origination Date = Origination Date
  - Literal = Loan Origination Date
  - Source = Origination Date

For example:

- Source value of the Origination Date = 11/01/11
- Journal entry description = Loan Origination Date 11/01/11

Manage Subledger Journal Entry Rule Sets

Creating Subledger Journal Entry Rule Sets: Explained

Subledger journal entry rule sets provide the definition for generating a complete journal entry for an accounting event.

Select the option to define the subledger journal entry rule set for a particular accounting event class or accounting event type.

If you are using multiple ledgers to meet divergent and mutually exclusive accounting requirements, you can vary journal entry rule sets by ledger. Each of the subledger journal entry rule sets can meet a specific type of accounting requirements.

For example, use US Generally Accepted Accounting Principles (GAAP) oriented subledger journal entry rule sets for a ledger dedicated to US GAAP reporting. Use French statutory accounting conventions for a ledger dedicated to French statutory reporting. These two sets of definitions have differences based on the setup of the various components that make up their subledger journal entry rule sets.

Predefined subledger journal entry rule sets are provided for all Oracle subledgers. If specific requirements are not met by predefined subledger journal entry rule sets, create a copy of the predefined definitions, rename, and modify the copied definitions and their assignments.

Subledger journal entry rule set assignments can be made at two levels, header and line. The following are the subcomponents of a subledger journal entry rule set:

- Description rules
- Journal line rules
- Account rules

Assignment at Header Level

Header assignments define subledger journal header information and line assignments define journal line accounting treatment.

A header assignment includes the following:

- Accounting date (required)
- Accrual reversal accounting date (optional)
- Description rule (optional)

Assignment at Line Level

You can define multiple subledger journal entry rule sets for an accounting event class or accounting event type. Using the line assignment of the journal entry rule set assigned to the accounting event class or type, a single journal entry is generated per accounting event per ledger.

The following can be assigned to a journal entry line:

- Journal line description rule
- Journal line rule
- Account rule
- Supporting references

Assignment of Description Rules

If a description rule is defined with sources, the sources must also be assigned to the accounting event class that is assigned to the journal entry rule set. The description rule may be assigned at either the header or line level of the journal entry or to both levels.

Assignment of Journal Line Rules

When assigning the journal line rule, you must identify the line type: Gain, Loss, Gain or Loss, Credit, or Debit. The journal line rule must be assigned to the same accounting event class as the one assigned to the subledger journal entry rule set.

When assigning a journal line rule that is enabled for accounting for a business flow, the account combination and certain accounting attribute values are copied from its related journal line having the same business flow class as the current line. Optionally, copy the description rule into the current line instead of assigning a separate description rule.

When assigning a journal line rule that is enabled to copy from the corresponding line within the same journal entry, you have the option to copy the account combination, the segment value, or the line description from the corresponding line into the current line.

Assignment of Account Rules

The account rule assignment defines which accounts are used for the subledger journal line. If the account rule is set up with a chart of accounts, it must have the same chart of accounts as the one assigned to the journal entry rule set. When account rules are defined with sources, the sources must also be assigned to the accounting event class that is assigned the journal entry rule set.

There are two types of account rules:

- Account Combination Rule: Assign an account combination rule to derive the account combination.

- Segment Rule: Assign a segment rule to derive a specific segment of an account. For example, a cost center or a natural account segment.

Assignment of Supporting References

Supporting references may be used to capture transaction values on journal entry lines. A supporting reference can be used on a journal entry rule set only if it's assigned a source from the event class of the journal entry rule set.

Manage Accounting Methods

Creating Accounting Method: Explained

Accounting methods group subledger journal entry rule sets to define a consistent accounting treatment for each accounting event class and accounting event type for all subledger applications. This grouping allows a set of subledger journal entry rule sets to be assigned collectively to a ledger.

For example:

- A subledger accounting method entitled US GAAP can be defined to group subledger journal entry rule sets that adhere to and comply with US Generally Accepted Accounting Principles (GAAP) criteria.
- By assigning a different subledger accounting method to each related ledger, you can create multiple accounting representations of transactions.

Accounting rules can be defined with either a top down, or a bottom up approach.

- Top Down: Define the accounting method, followed by components of each rule that must be assigned to it.
- Bottom Up: Define components for each rule and then assign them as required.

The Create Accounting process uses the accounting method definition with active journal entry rule set assignments to create subledger journal entries.

When an accounting method is initially defined its status changes to Incomplete. The status will also be Incomplete after modifying a component of any accounting rule associated to the assigned journal entry rule set.

> **Caution:** The accounting method must be completed, by activating its journal entry rule set assignments, so that it can be used to create accounting.

The following definitions are used to define the journal entries, and are applied as updates to the accounting method:

- Updates to the predefined accounting method
- Assignment of journal entry rule sets for an accounting event class and accounting event type from the accounting methods page
- Assignment of accounting methods to ledgers
- Activation of subledger journal entry rule set assignments

Updates on Predefined Accounting Method

You may update a predefined accounting method by end dating the existing assignment and creating an assignment with an effective start date.

Assignment of Journal Entry Rule Set for Accounting Event Class and Accounting Event Type

You create the assignment of a journal entry rule set for an accounting event class and accounting event type using the accounting method page.

The following should be considered for assigning rule sets:

- If the accounting method has an assigned chart of accounts you can select journal entry rule sets that:
  - Use the same chart of accounts
  - Are not associated with any chart of accounts
- Select an option to assign existing journal entry rule sets or create one.

Assignment of Accounting Methods to Ledgers

If the accounting method has an assigned chart of accounts, it may only be used by ledgers that use the same chart of accounts.

If the accounting method does not have an assigned chart of accounts, the accounting method can be assigned to any ledger.

Activation of Subledger Journal Entry Rule Set Assignments

You can activate the subledger journal entry rule set assignments from the Accounting Method page. You can also submit the Activate Subledger Journal Entry Rule Set Assignments process to validate and activate your accounting set ups.

Fusion Setup Flow

The figure below shows the relationship of components making up an accounting method as described in the above text.

Creating Conditions: Examples

The following provides examples of defining an account rule with a condition.

Example 1: Custom Real Estate Application Account Rule Condition Example

This example defines an account rule for assignment to a loan journal line. The account rule has two priorities, a mapping set and a constant.

- The first priority creates an output for an account based on the mapping set rule definition.
  - A condition is created using the first priority rule. This rule is only used if the condition below is met.
    - The condition is **Credit Status** must not be null.
    - The accounts derived from the mapping set rule are used if the Credit Status has a valid value. Otherwise, the accounts derived from the entered constants value from the second priority are used.

The following table describes the setup of the condition on the first priority:

(	Source	Operator	Value	)
(	"Credit Status"	is not null		)

The second priority creates an output from a constant value (0.9100030.50034206331.0.0.0). No condition is associated with the second priority.

Example 2: Oracle Fusion Assets Account Rule Condition Example

This example defines a rule for a capital purchase. The rule is applied if the distribution account cost center is the same as the liability account cost center, and the asset tracking option is Yes.

This condition can be expressed as:

- Where Distribution Cost Center = Liability Cost Center and Asset Tracking option = Yes

The following tables describe the setup of the condition:

(	Source	Delimiter	Segment	Operator	Value	Delimiter	Segment	)	And Or
(	"Distribution Account"	.	"Cost Center"	=	"Liability Account"	.	"Cost Center"	)	'AND'
(	"Asset Flag"			=	Yes			)	

The following two rows of data are used in the accounting event, to which the account rule and condition applies.

Account Rule Condition Example: Accounting Event Data

Account	Invoice 1	Invoice 2	Asset Flag
Distribution Account	02-640-2210-1234	01-780-6120-0000	Yes
Liability Account	01-640-2210-0000	02-782-2210-0000	Yes

In the Accounting Event Data table above, assume the cost center segment is the second segment. When the account rule with this condition is used the account rule is applied to derive the account of Invoice 1 only. For Invoice 2, (assets tracking option = Yes), the cost center for the Distribution and Liability accounts are not the same. Both conditions must be met in order for the rule to apply.

Note:

- When an account source is selected or entered, you must also select or enter a specific segment. Select All if the full account is required to be used in the condition instead of a specific segment.
- The condition uses the account source and distribution account, along with a segment that you must provide. In this example, the cost center segment is provided.

Creating Supporting References: Explained

Supporting references are used to store additional source information about a subledger journal entry at the line level.

Supporting references with balances establish subledger balances for a particular source and account for a particular combination of supporting references plus the account combination.

For example:

- If a journal line contains a supporting reference that includes two sources, Customer Type and Customer Name.
- Balances are created for the account combination, plus customer name and customer type.

Examples of how you may want to use supporting reference balances are to:

- Facilitate reconciliation back to the subledgers and source systems by tagging journal entries with transaction and reference attributes.
- Create balances by dimensions not captured in the chart of accounts.
- Reporting using dimensions not captured in the chart of accounts.
- Enrich Oracle Fusion Business Intelligence Applications reporting on subledger journals.
- Profit and loss balances by dimensions not captured in the chart of accounts

Define supporting references to hold additional supporting information for detailed account balance maintenance or reconciliation and reporting requirements.

Supporting Reference Assignment

Supporting references are a powerful tool to allow capture of journal entries with transaction attributes. You can use these tags to report on entries, reconcile entries back to source systems or even maintain balances at the attribute level.

- Define supporting references once and reuse by assigning sources of different event classes or source systems to the same supporting reference.
- You can assign one source per event class to each supporting reference. The subledger or source system uses the supporting reference name to store the source values. This standardizes supporting reference information, even if it comes from disparate source systems.

Supporting references can be defined using either of these options (located on tabs):

- With Balances:
  - Select the balances option in the definition of the supporting reference, to have balances only maintained when the supporting reference is assigned.
  - If balances are maintained for a supporting reference, they are carried forward into the next fiscal year, for all Profit and Loss account types.
  - A limit of thirty supporting references with balances can be defined. You can consider adding more source assignments to predefined supporting references, rather than creating a new one.
- Without Balances:
  - No limit to the number of supporting references without balances is defined.
  - Consider using a journal entry header or line description if:
    - No balance is maintained for a supporting reference.
    - No supporting reference details are needed for reports.

Caution: Using supporting references instead of descriptions may impact accounting engine performance.

Related Topics

- Supporting Reference Assignments: Points to Consider

Accounting Event Model: Explained

Accounting events represent transactions that may have financial significance, for example, issuing a loan and disposing of an asset. Financial accounting information can be recorded for these events and accounted by the Create Accounting process. When you define accounting events, determine from a business perspective which activities or transactions that occur in your source system may create a financial impact.

Events with significantly different fiscal or operational implications are classified into different accounting event types. Event types are categorized into accounting event classes. Accounting definitions in the Oracle Fusion Accounting Hub are based on event types. An event type must be unique within an application, process category, and event class.

Events are captured when transactions are committed in the subledgers, or they may be captured during end-of-day or period-end processing. For example, a loan is originated, possibly adjusted, interest is accrued, and then the loan is paid or canceled. The accounting events representing these activities can create one or more subledger journal entries, and subsequently link the originating transaction to its corresponding journal entries.

The following is an example of an accounting event model for a loan application:

Process Categories

A process category consists of specific event classes and the event types within those classes. To restrict the events selected for accounting, users can select a process category when they submit the Create Accounting process.

Event Classes

You can assign a transaction view and system transaction identifiers for an event class. Optionally, you can also assign user transaction identifiers and processing predecessors. The transaction view should include all columns that have been mapped to system transaction identifiers for the accounting event class. This view should also include the user transaction identifiers.

System Transaction Identifiers

System transaction identifiers provide a link between an accounting event and its associated transaction or document. An identifier is the primary key of the underlying subledger transaction. This is usually the name of the surrogate key column on the transaction (header), associated with the accounting event. At least one system transaction identifier must be defined for the accounting event class.

When an accounting event is captured, system transaction identifiers, along with other required event data, are validated for completeness.

User Transaction Identifiers

User transaction identifiers constitute the user-oriented key of the underlying subledger transaction, and are typically drawn from one or more database tables. These identifiers are primarily used in accounting events inquiry and on accounting event reports, to uniquely identify transactions. You can specify up to ten columns from the transaction views that are available for inquiry and reports.

The transaction data that identifies the transaction varies by accounting event class. Accounting event reports and inquiries display the transaction identifiers and their labels appropriate for the corresponding event class. The user transaction identifiers can be displayed for an event regardless of its status. This includes the case where the accounting event has not been used to create subledger journal entries due to an error. Or the cases where it has not been processed. The user transaction identifier values are displayed at the time that the accounting event reports and inquiries are run. If a transaction identifier value has changed after the accounting event was captured, the accounting event reports and inquiries reflect the change.

Processing Predecessors

The processing predecessor establishes an order in which the Create Accounting process processes events selected for accounting.

Event Types

For accounting event types, specify whether their accounting events have accounting or tax impact. When the Create Accounting process is submitted, it only accounts business events that are enabled for accounting.

Related Topics

- Subledger Journal Entries: How They Are Created and Processed

Transaction Objects: Points to Consider

You may assign transaction and reference objects for each accounting event class in the subledger application. Sources are generated based on the transaction objects and are assigned to the corresponding accounting event classes.

Sources are used to create accounting rules. Subledgers pass information to the application by populating transaction object tables. The columns in these tables are named after the source codes. Transaction and reference objects hold transaction information that is useful when creating journal entry rules for accounting. Transaction and reference objects are defined for an accounting event class. Source assignments to the accounting event class are generated using these objects.

Transaction Objects

Transaction objects refer to the tables or views from which the Create Accounting process takes the source values to create subledger journal entries. Source values, along with accounting event identifiers, are stored in the transaction objects. The Create Accounting process uses this information to create subledger journal entries.

You have several options. You can:

- Create new tables as the transaction objects and create a program to populate them.
- Use views of your transaction data as the transaction objects.
- Use your transaction data tables as the transaction objects.

The transaction objects and or views must be accessible to the Create Accounting process. Typically, an ETL (extract, transformation, and load) program is used to take values from the source system and load them into the database used by the Create Accounting process. The ETL process is done outside of the Create Accounting process.

The following are transaction object types:

- Header transaction objects
  - Implementors must provide at least one header transaction object for each accounting event class. Header transaction objects store one row with untranslated header source values for each accounting event. The primary key of a header transaction object is the event identifier.

    Transaction details that are not translated, and whose values do not vary by transaction line or distribution, should normally be stored in header transaction objects. Examples of sources normally stored in header transaction objects include the Loan Number for a loan or the Contract Number for a contract.
- Line transaction objects
  - Line transaction objects are relevant when there are details for the accounting event that vary based upon transaction attributes. For example, a mortgage transaction for loan origination may have multiple amounts, each related to different components of the loan. There may be a loan origination amount, closing cost amounts, and escrow amounts. Each of these amounts could be captured as separate lines, along with an indication of the amount type.

    Line transaction objects store untranslated line level source values. There should be one row per distribution, identified by a unique line number. The primary key of a line transaction object is the event identifier and transaction object line number. Transaction details that are not translated, and whose values vary by transaction line or distribution, are normally stored in line transaction objects columns. Examples include the Loan Number for a loan payment.
- Multi-Language Support (MLS) transaction objects
  - MLS transaction objects are relevant to applications that support the MLS feature. MLS transaction objects store translated source values. There should be one row per accounting event and language. The primary key of a header MLS transaction object is the event identifier and language. The primary key of a line MLS transaction object is the event identifier, transaction object line number, and language.

    Transaction details that are translated, and whose values do not vary by transaction line or distribution, are normally stored in header MLS transaction object columns. Examples include Loan Terms for a commercial loan. Implementors can avoid having to store source values in header MLS transaction objects by using value sets and lookup types.

    Transaction details that are translated, and whose values vary by transaction line or distribution, should normally be stored in the transaction object in columns defined in a line MLS transaction object.

Reference Objects

Reference objects are useful for storing information that is used for creating subledger journal entries. This information may not be directly from the source system or may be used for many entries, thus making it redundant. Use reference objects to share sources information across applications.

For example, store customer attributes, such as the customer class or credit rating in a reference object, and then, use it to account for different journal entries in a loan cycle, such as loan origination or interest accrual. Store information, such as bond ratings and terms, and use it to account for entries across the life of bonds, such as interest accruals or bond retirement.

Reference objects can either have a direct relationship to transaction objects (primary reference object), or be related to other reference objects (secondary).

Managing Accounting Sources: Critical Choices

Sources are a key component for setting up accounting rules. Sources represent transaction and reference information from source systems. Contextual and reference data of transactions that are set up as sources can be used in accounting rules definitions.

When determining what sources should be available, it's helpful to begin the analysis by considering which information from your systems is accounting in nature.

Examples of sources that are accounting in nature include:

- Transaction accounts
- Transaction currency
- Transaction amounts

Sources that are not always required for accounting rules include items that are related to the transaction for other purposes than accounting.

Examples of information that may not be specifically for accounting, but which may be useful for creating subledger journal entries are:

- Transaction identification numbers such as:
  - Loan number
  - Customer number
  - Billing account number
- Counterparty information
- Transaction dates

Provide a rich library of sources from your source systems for maximum flexibility when creating definitions for subledger journal entries.

Sources are assigned to accounting event classes by submitting the Create and Assign Sources process.

A distinct difference exists between sources and source values:

- Sources represent the transaction attributes used to create accounting rules.
- Source values are used by the Create Accounting process to create subledger journal entries based upon source assignments to accounting rules.

Sources

Sources must be created prior to creating accounting rules. This predefined step must be undertaken before the application can be used to create subledger journal entries.

To set up appropriate subledger journal entry rule sets, users and those implementing must understand the origins, meaning, and context of sources.

Use business-oriented names for sources to allow accountants and analysts to effectively create accounting rules.

- Enables users to easily identify a source.
- Ensures consistency in nomenclature.

Source Values

Source values are stored in transaction objects. They are the actual transaction attribute values from the source system and are used in creation of the journal entries.

Accounting Attribute Assignments: Points to Consider

The Create Accounting process uses the values of sources assigned to accounting attributes plus accounting rules to create subledger journal entries. Almost all accounting attributes have sources assigned at the accounting event class level. Depending on the accounting attribute, the accounting attribute assignment defaults from the accounting event class. It can be overridden on journal line rules or subledger journal entry rule sets.

Once sources are assigned to accounting event classes, they are eligible for assignment to accounting attributes for the same accounting event classes.

The Create Accounting process uses these assignments to copy values from transaction objects to subledger journal entries. For example, you may map the invoice entered currency to the subledger journal entry entered currency.

Each accounting attribute is associated with a level:

1. Header: To be used when creating subledger journal entry headers.
2. Line: To be used when creating subledger journal entry lines.

The types of accounting attributes values are as follows:

Values that are Subject to Special Processing

You may have values that are subject to special processing or values that are stored in named columns in journal entry headers and lines.

Examples of accounting attributes are Entered Currency Code and Entered Amount.

Values that Control the Action of the Create Accounting Process

You may have values that control the action of the Create Accounting process when processing a specific accounting event or transaction object line.

An example of accounting attributes of this type is Accounting Reversal Indicator.

Minimum Required Accounting Attribute Assignments

To create a valid journal entry you must, at a minimum, set up the following accounting attribute assignments.

- Accounting Date

- Distribution Type
- Entered Amount
- Entered Currency Code
- First Distribution Identifier

The details and descriptions of these attributes are included in the Accounting Attributes section.

Accounting Attributes

Accounting attribute groups are represented in the tables below:

Accounted Amount Overwrite

- The accounted amount overwrite attribute identifies whether the accounted amount calculated by the Create Accounting process should be overwritten by the value of the accounted amount accounting attribute.
- If the source value mapped to Accounted Amount Overwrite is 'Y', then an accounted amount must be provided.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Accounted Amount Overwrite Indicator	Alphanumeric	Line	Event Class and Journal Line Rule	No	Y - Overwrite accounted amount N - Not overwrite accounted amount

Accounting Date

- The accounting date attribute is relevant to all applications. The Create Accounting process uses it to derive the accounting date of journal entries. Typically, the event date system source is assigned to the accounting date attribute.
- The Accrual Reversal GL Date accounting attribute is relevant to applications using the accrual reversal feature. Users can assign system and standard date sources to the Accrual Reversal GL Date in the Accounting Attribute Assignments page. When the Accrual Reversal GL Date accounting attribute returns a value, the Create Accounting process generates an entry that reverses the accrual entry.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Accounting Date	Date	Header	Event Class and Journal Entry Rule Set	Yes	Should be in open general ledger period
Accrual Reversal GL Date	Date	Header	Event Class and Journal Entry Rule Set	No	Should be later than the accounting date

Accounting Reversal

- Accounting reversal accounting attributes are relevant to applications that want to take advantage of the accounting reversal feature. The Create Accounting process uses them to identify transaction (distributions) whose accounting impact should be reversed.

- For the Create Accounting process to successfully create a line accounting reversal, the accounting reversal indicator, distribution type, and first distribution identifier should always be assigned to sources. The definition of the accounting reversal distribution type and distribution identifiers mirrors the definition of the distribution identifiers.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Accounting Reversal Distribution Type	Alphanumeric	Line	Event Class	Yes, if another accounting reversal accounting attribute is assigned.	
Accounting Reversal First Distribution Identifier	Alphanumeric	Line	Event Class	Yes, if another accounting reversal accounting attribute is assigned.	
Accounting Reversal Second Distribution Identifier	Alphanumeric	Line	Event Class	No	
Accounting Reversal Third Distribution Identifier	Alphanumeric	Line	Event Class	No	
Accounting Reversal Fourth Distribution Identifier	Alphanumeric	Line	Event Class	No	
Accounting Reversal Fifth Distribution Identifier	Alphanumeric	Line	Event Class	No	
Accounting Reversal Indicator	Alphanumeric	Line	Event Class	Yes, if another accounting reversal accounting attribute is assigned.	Y - Reverse without creating a replacement line B - Reverse and create a new line as replacement N or Null - Not a reversal
Transaction Accounting Reversal Indicator	Alphanumeric	Header	Event Class	No	Y - Reversal transaction object header N or null - Standard transaction object header

Business Flow

- The business flow accounting attributes are referred to as 'applied to' accounting attributes. If a transaction is applied to a prior transaction in the business flow, the transaction object must populate sources assigned to 'applied

to' accounting attributes with sufficient information to allow the Create Accounting process to uniquely identify a transaction object line for a prior event in the business flow.

- When deriving accounting data from a previous event in the business flow, the Create Accounting process searches for a journal entry line for the prior event using a combination of the 'applied to' accounting attributes and the business flow class of both journal entries.
- The Applied to Amount accounting attribute is used to calculate the accounted amount and gain or loss in cross-currency applications when business flows are implemented. This attribute value is used to calculate the accounted amount when a source is mapped to the Applied to Amount attribute on a journal line type and the entered currency is different than the original currency entered.

Note: When enabling a business flow to link journal lines in the Journal Line Rule page, certain accounting attribute values are unavailable for source assignment. These do not appear in the Accounting Attributes Assignments window of the same page because they are copied from the related prior journal entry.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Applied to Amount	Number	Line	Event Class and Journal Line Rule	No	
Applied to First System Transaction Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	
Applied to Second System Transaction Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Third System Transaction Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Fourth System Transaction Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Distribution Type	Alphanumeric	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	
Applied to First Distribution Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	
Applied to Second Distribution Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Third Distribution Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Applied to Fourth Distribution Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Fifth Distribution Identifier	Alphanumeric	Line	Event Class and Journal Line Rule	No	
Applied to Application ID	Number	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	Must be a valid application ID
Applied to Entity Code	Alphanumeric	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	Must be a valid Entity for the application selected in Applied to Application ID

Distribution Identifier

- Distribution identifiers accounting attributes are relevant to all applications. The distribution identifier information links subledger transaction distributions to their corresponding journal entry lines. In addition, many of the subledger accounting features, including accounting reversals, rely on the correct definition and storing of distribution identifiers in the line transaction objects.
- The distribution type and first distribution identifiers are always assigned to sources. If a transaction distribution is identified by a composite primary key, additional distribution identifiers are assigned to standard sources, as appropriate.
- Values for the distribution type and distribution identifiers are always stored in accounting transaction objects. The combinations of the values of the system transaction identifiers with the values of the distribution identifiers uniquely identify a subledger transaction distribution line.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Distribution Type	Alphanumeric	Line	Event Class	Yes	
First Distribution Identifier	Alphanumeric	Line	Event Class	Yes	
Second Distribution Identifier	Alphanumeric	Line	Event Class	No	
Third Distribution Identifier	Alphanumeric	Line	Event Class	No	
Fourth Distribution Identifier	Alphanumeric	Line	Event Class	No	

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Fifth Distribution Identifier	Alphanumeric	Line	Event Class	No	

Document Sequence

- The document sequence accounting attributes are relevant to applications that use the document sequencing feature to assign sequence numbers to subledger transactions. The Create Accounting process uses them to provide a user link between subledger transactions and their corresponding subledger journal entries.
- Assign all document sequence accounting attributes to sources or do not assign any.
- The Document Sequence Category Code is made available as an Accounting Sequence Numbering control attribute.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Subledger Document Sequence Category	Alphanumeric	Header	Event Class	Yes, if another accounting attribute in the same group has assignment.	
Subledger Document Sequence Identifier	Number	Header	Event Class	Yes, if another accounting attribute in the same group has assignment.	
Subledger Document Sequence Value	Number	Header	Event Class	Yes, if another accounting attribute in the same group has assignment.	

Entered Currency

- Entered currency accounting attributes are relevant to all applications. The Create Accounting process uses them to populate the journal entry line entered currency and amounts.
- The entered currency accounting attributes must always be assigned to sources. The sources assigned to the entered currency accounting attributes must always contain a value.
- For event classes that support cross currency transactions, and more than one entered currency and entered currency amount, multiple event class accounting attribute assignments are created.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Entered Currency Code	Alphanumeric	Line	Event Class and Journal Line Rule	Yes	A valid currency code
Entered Amount	Number	Line	Event Class and Journal Line Rule	Yes	

Ledger Currency

- Ledger currency accounting attributes are relevant to all applications that use the Create Accounting process. The Create Accounting process uses them to populate journal entry accounted amounts.
- If a transaction's entered currency is different from the ledger currency, the Create Accounting process copies the conversion date, rate, and rate type to the corresponding journal entry lines. If the entered currency is the same as the ledger currency, the Create Accounting process ignores the conversion type and conversion rate.
- For event classes that support foreign currency transactions, and therefore more than one conversion rate and reporting currency amount, multiple event class accounting attribute assignments are created.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Accounted Amount	Number	Line	Event Class and Journal Line Rule	No	
Conversion Date	Date	Line	Event Class and Journal Line Rule	No	
Conversion Rate	Number	Line	Event Class and Journal Line Rule	No	
Conversion Rate Type	Alphanumeric	Line	Event Class and Journal Line Rule	No	A valid general ledger conversion rate type or User

Tax

- The tax accounting attributes are relevant to applications that uptake the tax initiative. The tax team uses the tax accounting attributes to link subledger transaction tax distributions to their corresponding journal entry lines.
- Oracle Fusion Tax specifies which tax reference values are required in transaction objects and are assigned to standard sources.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Detail Tax Distribution Reference	Number	Line	Event Class	No	
Detail Tax Line Reference	Number	Line	Event Class	No	
Summary Tax Line Reference	Number	Line	Event Class	No	

Third Party

- Third-party accounting attributes are relevant to subledger applications that use third-party control accounts. The third-party accounting attributes link suppliers and customers to their corresponding subledger journal entry lines in the supplier and customer subledgers.

- For all subledger transactions that represent financial transactions with third parties, all third-party accounting attributes have sources assigned.
- If a transaction line is associated with a customer or supplier, the transaction objects must include values for all sources mapped to third-party accounting attributes for the event class.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Party Identifier	Number	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	If party type C - Should be a valid customer account If party type is S - Should be a valid supplier identifier
Party Site Identifier	Number	Line	Event Class and Journal Line Rule	Yes, if another accounting attribute in the same group has assignment.	If party type C - Should be a valid customer account If party type is S - Should be a valid supplier identifier
Party Type	Alphanumeric	Line	Event Class	Yes, if another accounting attribute in the same group has assignment.	C for Customer S for Supplier

Exchange Gain Account, Exchange Loss Account

- The Create Accounting process determines whether there is an exchange gain or loss and derives the account combination based on whether the journal line rule is defined.
- If the gain or loss journal line rule is defined, the account rule assigned to the journal line rule is used to determine the gain or loss account to use.
- If the gain or loss journal line rule is not defined, the gain or loss account assigned to the Exchange Gain Account and Exchange Loss Account accounting attributes is used.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Exchange Gain Account	Number	Header	Event Class	No	
Exchange Loss Account	Number	Header	Event Class	No	

Gain or Loss Reference

- The Gain or Loss Reference accounting attribute groups entry lines together when calculating exchange gain or loss. The accounted debit and accounted credit amounts for lines with the same gain or loss reference are combined. The total of accounted debit and total of accounted credit are compared to calculate the exchange gain or loss.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Gain or Loss Reference	Alphanumeric	Line	Event Class	No	

Transfer to GL Indicator

- The Transfer to GL accounting attribute is relevant to applications which create subledger journal entries that are not transferred to the general ledger. The Transfer to GL process uses this accounting attribute to determine whether to transfer subledger journal entries to the general ledger.
- If the Transfer to GL accounting attribute is not assigned to a source, the Transfer to GL process transfers journal entries for the event class to the General Ledger.
- If the Transfer to GL accounting attribute is assigned to a source and the source is not populated, the Transfer to GL process transfers journal entries for the event class to the General Ledger.

Accounting Attributes	Data Type	Journal Entry Level	Assignment to Rules	Assignment Required?	Validation Rules
Transfer to GL Indicator	Alphanumeric	Header	Event Class	No	Should be Y or N

45 Define Approval Management

Approval Management: Highlights

Use approval management to define policies that apply to approval workflows. For example, to reflect your own corporate policies, you can specify levels of approval for expense reports over a particular amount and determine how the approvals are routed.

Approval management:

- Controls workflows for business objects such as expense reports.
- Enables you to define complex, multistage task routing rules.
- Integrates with the setup in Human Capital Management (HCM) to derive approvers based on the supervisory hierarchy.

To define approval management, use the Define Approval Management task list in the Setup and Maintenance work area. The task list includes setup tasks for managing workflow task configurations and approval groups.

Task Configuration

Manage rule sets and rules that control approval flows.

- To configure a predefined approval policy, select the predefined rule set and click the Edit Task icon.
- To disable a predefined rule set, select the Ignore participant check box for that rule set.
- To edit the rules within a predefined rule set, you can insert, update, or delete while in edit mode.
- You can configure a specific rule to automatically approve a task without sending it to any approver.
  - Modify the routing for that rule so that it is sent to the initiator (which means the requestor is the approver).
  - Set the Auto Action Enabled option to True.
  - Enter APPROVE in the Auto Action field.

Approval Groups

Each approval group includes a set of users that you configure to act on tasks in a certain pattern. Tasks can be defined to get routed to an approval group instead of an individual user.

- You can nest approval groups within approval groups.
- You have two options for defining the group:
  - Static: Select the specific users to include in the group.
  - Dynamic: Provide the logic to use to determine the users in the group.

Customization

You can also customize predefined approval workflows, for example to add post-approval activities or additional stages (not available for Oracle Cloud implementations).

- Refer to the Oracle Fusion Applications Extensibility Guide for Developers.
  See: Customizing and Extending SOA Components

Other Workflow Setup

Determining When Workflow Tasks Are Automatically Dismissed or Withdrawn: Points to Consider

Only workflow tasks with a final status, such as Completed or Withdrawn, can be purged and removed from users' worklists. Tasks go from the Assigned status to the Completed status when the final assignee approves or rejects the tasks, or, with **for your information** (FYI) tasks, when assignees explicitly dismiss the tasks. If assignees don't take actions that result in a final task status, within a certain period of time, then the tasks are automatically dismissed (FYI tasks) or withdrawn (all other tasks).

When Tasks are Eligible for Automatic Dismissal or Withdrawal

The FYI Notifications Expiration Period profile option determines when FYI tasks are eligible for automatic dismissal. In the Setup and Maintenance work area, use the Manage Applications Core Administrator Profile Values or Manage Administrator Profile Values task to set the profile option.

- Leave the profile option with the default value of 7, or replace it with a different number.
- The profile value represents the number of days after the FYI task is created.

When assignees don't read or dismiss an FYI task within the specified number of days after the task was created, the task is then eligible to be automatically dismissed.

All other tasks are eligible for automatic withdrawal when assignees don't take action to send the task to a final status within six months after the task was created.

When Eligible Tasks Are Automatically Dismissed or Withdrawn

Different processes run to automatically dismiss eligible FYI tasks or withdraw all other eligible tasks.

- **FYI Tasks:** The process runs every three days, starting the first day of each month. For example, it runs on May 1, 4, 7, and so on, and again on June 1 and every three days after. So, if you leave the FYI Notifications Expiration Period profile value at 7, then depending on when the process runs, an FYI task can be automatically dismissed within seven to ten days after it's created. The process changes the FYI task status from Assigned to Completed.
- **All Other Tasks:** The process runs every three days, starting the second day of each month. For example, it runs on May 2, 5, 8, and so on, and again on June 2 and every three days after. The process changes the status of eligible tasks to Withdrawn.

Related Topics

- Setting Profile Option Values: Procedure

Setting Up the Worklist Region on My Dashboard: Points to Consider

Worklist: Notifications and Approvals is one of the predefined regions users can add to My Dashboard (**Navigator - My Dashboard**), which is blank by default. This region contains workflow tasks. To set up this Worklist region, select a value for the Welcome Dashboard Worklist Timeout Interval (ATK_HOME_PAGE_WORKLIST_TIMEOUT) profile option. In the Setup and Maintenance work area, use the Manage Application Toolkit Administrator Profile Values or Manage Administrator Profile Values task to set this profile option.

Profile Value Considerations

When users open My Dashboard and it contains the Worklist: Notifications and Approvals region, data for the region is retrieved. The profile option determines how long to continue retrieving before timing out and displaying no data.

- If you don't set a value for this profile option, which is blank by default, then the region doesn't time out.
- Retrieving data for the Worklist region affects the performance of My Dashboard as a whole. So, select a value for this profile option if your users have the Worklist region on My Dashboard and notice performance issues.

After the timeout, users can refresh the region to try retrieving the data again.

Related Topics

- Setting Profile Option Values: Procedure

46 Define Help Configuration

Setting Up Help: Overview

Applications Help works without you having to set anything up. You can do the optional setup, mainly if you want to customize help. Select the help features you want, perform tasks in the Define Help Configuration task list, and customize help.

Help Feature Choices

In the Setup and Maintenance work area, select help feature choices on the Features page when you configure your offerings. Feature choices determine:

- What's available in Applications Help
- What you can configure to set up help

The first feature choice for help is Local Installation of Help, and you must leave it selected. Other feature choices are:

- Access to Internet-Based Help Features
- Help Customization
- Custom Help Security

Define Help Configuration Task List

In the Setup and Maintenance work area, use these tasks in the Define Help Configuration task list to configure Applications Help for all users:

- **Set Help Options:**
  - Determine if certain features of Applications Help are available to users.
  - Control how aspects of Applications Help work.
- **Assign Help Text Administration Duty:** Contact your security administrator to determine who can customize help.
- **Manage Help Security Groups:** Set up security to limit access to certain help files.

Help Customization

After you configure help, you can review the predefined help and see if you want to add or customize any content. You can also customize help text that appears on the page, for example hints.

Related Topics

- Features: Explained

- Help File Customization: Overview
- Customizing Help That Appears on the Page: Highlights

Set Help Options

Setting Up Access to Web Sites from Applications Help: Procedure

You can determine the Web sites that users can access from Applications Help.

Setting Up Access to External Web Sites

Follow these steps:

1. In the Setup and Maintenance work area, open the Features page for your offering.
2. Leave the **Location Installation of Help** feature choice selected.
3. Select the **Access to Internet-Based Help Features** feature choice to allow access to Web sites from Applications Help. For example, some help files link to guides on the Oracle Help Center; this access is necessary for those links to work.
4. Select other feature choices as needed, and click **Done**.
5. Open the Set Help Options task.
6. In the Web Sites Available from Help Site section, select the sites to link to from the Navigator menu in Applications Help.
7. Save your work.

Setting Up Help Customization: Procedure

Users with the appropriate roles can customize predefined help or add their own files to help. To enable and set up help customization, do the following steps in the Setup and Maintenance work area, in the specified order.

Selecting Feature Choices

Perform these steps:

1. On the Features page for your offering, leave the Local Installation of Help feature choice selected.
2. Select the Help Customization feature choice.
3. Select the Custom Help Security feature choice if you want certain help files to be available only to a restricted set of users.

   Caution: Don't select this feature choice if you don't have this requirement, because the feature can affect performance.

4. Save your work.

Setting Help Options

Perform these steps:

1. Open the Set Help Options task in the Setup and Maintenance work area.

2. Optionally set options in these sections:
   - **Help Site Customization:**
     - Determine how users can identify custom files in Applications Help.
     - Upload your own image to use as the background picture on the help home page. Select an image that's white along the entire left border, like you see in the default image.
   - **Oracle User Productivity Kit:** Add a link in the Navigator in Applications Help to your custom User Productivity Kit library.
   - **Privacy Statement:** Add a link to your own privacy statement. To see this link, users click their user name in the global area of Applications Help.
3. Save your work.

Providing Users Access to Help Customization

Only users with job roles containing the ATK_CUSTOMIZE_HELP_TOPICS_PRIV privilege can customize help. The Assign Help Text Administration Duty task is a reminder for you to follow up with your security administrator. Make sure that users who want to customize help have the access to do so.

Setting Up Help File Security

If you selected the Custom Help Security feature choice, then go to the Manage Help Security Groups task and select job roles to include in help security groups.

When you later customize a help file, you can select a group to determine which job roles have access to the file.

FAQs for Set Help Options

Why can't I see certain sections on the Set Help Options page?

What's available on the page depends on the help feature choices that you select in the Setup and Maintenance work area. This table describes the correlation between feature choices and specific sections on the Set Help Options page.

Help Feature Choice	Section on Set Help Options Page
Local Installation of Help	None, but without selecting this feature choice, you can't select the other help feature choices
Access to Internet-Based Help Features	Web Sites Available from Help Site
Help Customization	Help Site Customization Oracle User Productivity Kit Privacy Statement
Custom Help Security	None

When do I link to the Oracle User Productivity Kit library from Applications Help?

If you license Oracle User Productivity Kit and have custom User Productivity Kit content to share with your users. Topics that you add as custom help files in Applications Help are available only in the See It mode. However, in the library, users

can see the same topic in other modes. If you have User Productivity Kit versions earlier than 3.6.1, then you can't add User Productivity Kit topics as custom help. So the link to the library is the only way users can get custom User Productivity Kit content from Applications Help.

What's the URL for my Oracle User Productivity Kit library?

The full path from the Web server where you're hosting your Oracle User Productivity Kit content to the **index.html** file that opens the table of contents for the library. For example, **http://<your domain>.com/MyContent/PlayerPackage/index.html**.

In this example, you or your administrator published one player package that contains all the content to be linked to from Applications Help, including the **index.html** file, and placed the PlayerPackage folder in a folder called MyContent on the Web server.

FAQs for Assign Help Text Administration Duty

Who can add and manage custom help?

Users with the Customize Help Topics (ATK_CUSTOMIZE_HELP_TOPICS_PRIV) privilege can customize:

- Help in Applications Help and help windows
- Pages in the Getting Started work area

This privilege is assigned by default to the administrators for product families. Your security administrator can define which users have job roles with this privilege.

Manage Help Security Groups

Creating Help Security Groups: Worked Example

This example shows how to create a help security group, which contains a set of job roles. You can later assign the help security group to particular help files so that only users with any of the included job roles have access to the help.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What type of users do you need to limit help access to?	Human resources (HR) specialists
Is there a specific time period for which this access is needed?	No, the help files should always be viewed only by the HR specialists
Where do you want this group to appear in the list of values for help security groups?	First

Define a help security group and assign a job role to the group.

Prerequisites

1. Open the Features page for your offerings in the Setup and Maintenance work area.
2. Make sure that the Location Installation of Help feature choice is selected.

Creating the Help Security Group

1. In the Setup and Maintenance work area, go to the Manage Help Security Groups task.
2. On the Manage Help Security Groups page, add a new row.
3. Complete the fields, as shown in this table. Leave the start and end dates blank.

Field	Value
Help Security Group	HR
Meaning	HR Only
Description	Viewing by HR specialists only
Display Sequence	1

4. Click **Save**.
5. With your new help security group selected, go to the Associated Roles section and add a new row.
6. Select **PER_HUMAN_RESOURCE_SPECIALIST** as the role name.
7. Click **Save and Close**.
   To assign your new help security group to help files, you must create or edit help using the Manage Custom Help page, not help windows.

Related Topics

- How can I restrict access to specific help files?

47 Define Application Toolkit Configuration

Define Application Toolkit Configuration: Overview

Oracle Fusion Application Toolkit (ATK) provides many features that are available to users of all product families. These features include Applications Help, the Reports and Analytics pane, and the Watchlist. In the Setup and Maintenance work area, use the Define Application Toolkit Configuration task list to set up some of these components. Use the Define Help Configuration task list to set up Applications Help.

> **Note:** The Define Application Toolkit Configuration task list is available in implementation projects only if the Application Toolkit Component Maintenance feature choice is selected.

Tasks

The Define Application Toolkit Configuration task list contains these tasks:

- **Map Reports to Work Areas:** Determine what's available in the Reports and Analytics pane for specific work areas.
- **Set Watchlist Options:** Define settings that affect what's displayed in the Watchlist and how often items are refreshed.
- **Manage Application Toolkit Administrator Profile Values:** Set profile options to affect how some Application Toolkit features work.

Related Topics

- Setting Up the Worklist Region on My Dashboard: Points to Consider
- Setting Up Help: Overview

Map Reports to Work Areas

Setting Up the Reports and Analytics Pane: Procedure

You can find the Reports and Analytics pane in many work areas, and the analytics and reports you see in the pane depends on the work area. You can define what's available for a specific work area, by mapping reports from the business intelligence (BI) catalog to that work area. In this mapping context, reports refer to both analytics and reports. Your changes apply to all users who have access to the work area you're mapping.

Mapping Reports from Your Work Area

To map reports to the work area that you're in:

1. Click the **Edit Settings** icon in the Reports and Analytics pane.

You see all the reports that are currently mapped to your work area.

2. Click **Select and Add**.
3. Find the report in the catalog and select it.
4. Click **OK**.
5. To remove any mapping, select the report and click **Remove**.
6. Save your work.

Mapping Reports to Any Work Area

To map reports to any work area that you have access to:

1. Go to the Setup and Maintenance work area and open the Map Reports to Work Areas task.
2. Select the application of the work area you want to map to.
3. Select the work area.
4. Click **Search** and see all the reports that are currently mapped to that work area.
5. Click **Select and Add**.
6. Find the report in the catalog and select it.
7. Click **OK**.
8. To remove any mapping, select the report and click **Remove**.

   Tip: Click **Synchronize** to remove all mappings to any reports that are no longer in the catalog. You synchronize all work areas, not just the one you're mapping.

9. Save your work.

Related Topics

- Reports and Analytics Pane: Explained

Setting Reports Up for Scheduling in the Reports and Analytics Pane: Procedure

You can set up reports as scheduled processes, which means users can submit them from the Scheduled Processes and other work areas. If you want users to also submit these scheduled processes from the Reports and Analytics pane, then you must configure properties for the corresponding reports.

Enabling a Report for Scheduling

To enable scheduling in the Reports and Analytics pane:

1. Select the report in the business intelligence catalog and click **Edit**.
2. Click **Properties**.
3. On the General tab in the Properties dialog box, enter the following fields:

Field	Value
Enterprise Scheduler Job Package Name	The path for the job definition, for example: / oracle/ apps/ ess/<product family>/ <product>/ <business area>/ Jobs

Field	Value
Enterprise Scheduler Job Definition Name	The job definition name (not display name), for example: ABCDEFG

Related Topics

- Setting Reports Up to Run as Scheduled Processes: Points to Consider
- Accessing Report Components to Customize: Points to Consider

FAQs for Map Reports to Work Areas

Why can't I see reports when mapping reports to work areas for the Reports and Analytics pane?

Either no reports are currently mapped to the work area you select on the Map Reports to Work Areas page, or you don't have access to the reports that are mapped.

Similarly, when you're selecting a report to map, you can see only the reports that you have access to. Ask your administrator to either:

- Assign you roles that have access to the reports you want to map to work areas.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to those reports.

Why can't I see reports when I edit settings for the Reports and Analytics pane?

In the Edit Settings window, you might not see a currently mapped report because you don't have access to it.

Similarly, when you're selecting a report to map, you can see only the reports that you have access to. Ask your administrator to either:

- Assign you roles that have access to the reports you want to map to work areas.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to those reports.

Set Watchlist Options

Disabling and Enabling Watchlist Categories and Items: Points to Consider

You can disable or enable predefined Watchlist categories and items for all users. Use the Set Watchlist Options task in the Setup and Maintenance work area.

Ultimately, what users see in their own Watchlist would be the categories and predefined items that you enable in the Set Watchlist Options page:

- Plus any saved searches that the user is using as Watchlist items

- Minus any categories or items that the user decides to hide using Watchlist preferences
- Minus any items with no results found, if the user decides to hide such items using Watchlist preferences

Any Category or Item

When you disable any category or item, you also disable the processes that calculate the Watchlist item counts. These processes include creating data caches, performing security checks, calling services across domains, running queries, and so on.

Predefined Watchlist Items

An item with the Predefined type represents the actual predefined Watchlist item that appears in the Watchlist. If you disable this type of Watchlist item, then:

- The item isn't available for users to display in their Watchlist.
- The item is removed from any Watchlist where it's currently displayed.

If you disable a Watchlist category, then the category is not available for users to include in their Watchlist. All Watchlist items within the category are also disabled.

User-Created Saved Search Watchlist Items

A Watchlist item with the User-Created Saved Search type doesn't appear in the Watchlist. It controls the display of the **Manage Watchlist** button on pages with saved searches. If you disable this type of Watchlist item, then:

- The **Manage Watchlist** option isn't available on the corresponding page, so users can't use their own saved searches as Watchlist items.
- Any user-defined saved searches (from that page) already used as Watchlist items are removed from the users' Watchlist. The saved searches are still available for searching, but not for the Watchlist.

Watchlist Category

If you disable a Watchlist category, then:

- The category isn't available for users to include in their Watchlist.
- All Watchlist items within the category are also disabled.

Related Topics

- Creating Watchlist Items: Procedure
- Displaying and Hiding Watchlist Items: Procedure

Refresh Intervals for Watchlist Items: Explained

All Watchlist items have a predefined refresh interval, which controls how often the query that calculates the count for a Watchlist item can run. Use the Set Watchlist Options task in the Setup and Maintenance work area to edit the interval values.

How the Refresh Works

The count for any Watchlist item gets refreshed as follows.

- When users open the Watchlist in the global area for the first time after signing in, the item is refreshed if five minutes have passed since its last refresh in an earlier session.

- When users open the Watchlist again, the item is refreshed only if the time since its last refresh is equal to or greater than the refresh interval.

User-Created Saved Search Watchlist Items

What you enter as the refresh interval for a Watchlist item of type User-Created Saved Search applies to all Watchlist items based on saved searches that users create for that item. For example, you set the refresh interval for the Corporate Card Transactions item to five minutes. Multiple users create saved searches for corporate card transactions and use those saved searches as Watchlist items in their own Watchlist. All of these Watchlist items would have a refresh interval of five minutes.

Related Topics

- Creating Watchlist Items: Procedure

FAQs for Set Watchlist Options

How can I change predefined Watchlist category and item names?

Edit the standard lookup type that stores the predefined Watchlist category and item names.

1. In the Setup and Maintenance work area, go to the Manage Standard Lookups task.
2. Find the lookup type for the Watchlist category you want to edit. Lookup types for predefined categories end with WATCHLIST, for example EXM_EXPENSES_WATCHLIST.
3. Edit the lookup type meaning to change the category name.
4. To change item names, edit lookup code meanings.
5. Save your work.

Related Topics

- Lookups: Explained

Manage Application Toolkit Administrator Profile Values

Setting Up the Mapping Service for Contextual Addresses: Points to Consider

A contextual address is marked with an orange triangle that users can click to display the address on a map. The Mapping Service for Contextual Addresses profile option determines the mapping service to use to display the map. Use the Manage Administrator Profile Values or Manage Application Toolkit Administrator Profile Values task in the Setup and Maintenance work area to set the profile option value.

Profile Option Default

By default, the Mapping Service for Contextual Addresses profile option has no value.

Caution: Until you enter a valid value for this profile option, users get an error when they try to open a map for any contextual address.

Profile Option Value

After you find and select the Mapping Service for Contextual Addresses profile option, enter a mapping service URL in the Profile Value column, for example:

- **`http://maps.google.com/maps?output=embed&q=`**
- **`http://maps.yahoo.com/maps_result.php?q1=`**
- **`http://maps.live.com/default.aspx?where1=`**
- **`http://bing.com/maps/?v=2&encType=1&where1=`**

You can include parameters in the URL. For example, to avoid a locator box in Google Maps, add **`&iwloc=&`** to the URL. So, you would enter **`http://maps.google.com/maps?iwloc=&&output=embed&q=`** as the profile value.

Related Topics

- Setting Profile Option Values: Procedure

Setting Up the Worklist Region on My Dashboard: Points to Consider

Worklist: Notifications and Approvals is one of the predefined regions users can add to My Dashboard (**Navigator - My Dashboard**), which is blank by default. This region contains workflow tasks. To set up this Worklist region, select a value for the Welcome Dashboard Worklist Timeout Interval (ATK_HOME_PAGE_WORKLIST_TIMEOUT) profile option. In the Setup and Maintenance work area, use the Manage Application Toolkit Administrator Profile Values or Manage Administrator Profile Values task to set this profile option.

Profile Value Considerations

When users open My Dashboard and it contains the Worklist: Notifications and Approvals region, data for the region is retrieved. The profile option determines how long to continue retrieving before timing out and displaying no data.

- If you don't set a value for this profile option, which is blank by default, then the region doesn't time out.
- Retrieving data for the Worklist region affects the performance of My Dashboard as a whole. So, select a value for this profile option if your users have the Worklist region on My Dashboard and notice performance issues.

After the timeout, users can refresh the region to try retrieving the data again.

Related Topics

- Setting Profile Option Values: Procedure

48 Maintain Common Reference Objects

Maintain Common Reference Objects: Overview

The Maintain Common Reference Objects task list contains tasks that support implementation of common functionality, such as data security, reference data sets, or general preferences.

Use this task list to manage common reference objects that are defined centrally and shared across applications. You can search for and access this task list in the Setup and Maintenance work area.

To make the Maintain Common Reference Objects task list available in your implementation project, go to **Setup and Maintenance - Configure Offerings**, and for a specific offering, select the Maintain Common Reference Objects feature choice.

Related Topics

- Moving Common Reference Objects: Overview

Why can't I edit setup data?

The configuration of your setup data may be protected. Application developers mark some configurations as protected, indicating that you can't edit them.

Some examples of configurations that may be protected are:

- Descriptive flexfields
- Extensible flexfield contexts
- Extensible flexfield pages
- Value sets
- Tree structures

Define Application Taxonomy

Application Taxonomy: Highlights

Oracle application components and functions are organized in a hierarchy, ranging from product lines to logical business areas. The hierarchy represents a breakdown of products into units based on how applications are installed and supported.

In the Setup and Maintenance work area, search for the Manage Taxonomy Hierarchy task and view the hierarchy on the Manage Taxonomy Hierarchy page.

A detailed introduction to application taxonomy is provided in the Oracle Fusion Applications Developer's Guide.

Hierarchy

- The application taxonomy hierarchy contains various levels and types of nodes, or modules.

  See: Characteristics of the Level Categories

  See: Benefits of a Logical Hierarchy

Usage

- Use application taxonomy to understand relationships among applications and between an application and its files. This information is helpful in managing various phases of the product life cycle.

  See: How to Manage the Life cycle

Modules in Application Taxonomy: Explained

The top level of the hierarchy is product line, followed by the product family, application, and logical business area. There can be multiple levels of logical business areas, with one or more nested within a parent logical business area. A module is a node at any of these levels. Each level is briefly described here.

- Product Line: A collection of product under a single brand name, for example, Oracle Fusion.
- Product Family: A collection of products associated with a functional area that may or may not be licensed together as a single unit, for example Financials.
- Application: A single product within a product family, containing closely related features for a specific business solution, for example General Ledger.
- Logical Business Area: A collection of business object definitions organized into a logical grouping. It contains the model objects, services, and UI components for those business objects. Logical business areas have their own hierarchy levels and in some cases can be up to two or three levels deep.

Managing Modules in Application Taxonomy: Points to Consider

In the application taxonomy hierarchy, when you create a module, it becomes a child of the currently selected node. Once created, you cannot delete the module or move it elsewhere in the hierarchy.

From the Manage Taxonomy Hierarchy page, navigate to the Create Child Module or Edit Module page to manage the modules. As you create or edit modules, consider the following points regarding specific fields.

Identifiers

Module ID is the unique primary key for nodes in the taxonomy table. When you create a module, a unique read-only ID is automatically generated. The module contains two other identifiers: Module key and alternative ID. The module key is a string identifier, for example AP for the Oracle Fusion Payables application. The alternative ID is a numeric identifier, for example 1 for the Oracle Fusion product line. These additional identifiers are provided for the product line, product family, and application modules. However, you can optionally add them for logical business areas and new custom modules.

Note: Don't change the module key or alternative ID for predefined modules.

The product code is relevant only to application and logical business area modules. You can leave the field blank for other module types. The product code for applications is the short name that can be displayed in lists of application values. For example, FND for Oracle Fusion Middleware Extensions for Oracle Application.

Names

Module name is the logical name for the module. The name must be unique among nodes within the hierarchy level with the same parent, but Oracle recommends keeping it unique in the entire hierarchy. The user name and description can appear to users in other parts of Oracle Applications Cloud.

Usage Types

Though you can update the usage type to reflect the current state of the module, just doing so does not affect the actual state. For example, setting a module as installed doesn't mean the module is actually installed if the installation itself didn't take place. Installation refers to operations related to laying down all the components required to create an Oracle Applications Cloud environment. Deployment is the process that starts the managed servers and clusters and facilitates the actual use of product offerings. A licensed module is available for installation and deployment, and a deployed module is considered actively used when actually used by users.

Seed Data

If seed data is allowed, then data residing in flexfields and lookups can be extracted for the module using seed data loaders. By default, extract is allowed for all predefined modules of type application and logical business area.

Associations

You can associate a logical domain to modules of the type Product Family, as well as one or more enterprise applications to modules of type Application. This association represents the relationship between the taxonomy modules and the corresponding domain and enterprise applications stored in the Oracle Applications Cloud Functional Core (ASK) tables.

Define Reference Data Sharing

Reference Data Sharing: Explained

Reference data sharing facilitates sharing of configuration data such as jobs and payment terms, across organizational divisions or business units. You define reference data sets and determine how common data is shared or partitioned across business entities to avoid duplication and reduce maintenance effort. Depending on the requirement (specific or common), each business unit can maintain its data at a central location, using a set of values either specific to it or shared by other business units.

A common reference data set is available as the default set, which can be assigned to several business units sharing the same reference data. For commonly used data such as currencies, you can use the common reference data set and assign it to multiple business units in various countries that use the same currency. In cases where the default set can't be assigned to an entity, you can create specific sets. The data set visible on the transactional page depends on the sharing method used to share reference data.

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of different business units setting up and using the same grades, XYZ Corporation decides to create a set called Grades, which contains the grades. All business units in the organization have the Grades set so that the grades can be shared and used.

Note: For specific information about configuring reference data sharing for a particular object or product, refer to the relevant product documentation.

Related Topics

- Reference Data Sets: Explained
- Reference Data Sets and Sharing Methods: Explained
- Assigning Reference Data Sets to Reference Objects: Points to Consider

Reference Data Sets: Explained

Reference data sets are logical groups of reference data that various transactional entities can use depending on the business context. You can get started using either the common reference data set or the enterprise set depending on your implementation requirement. You can also create and maintain custom reference data sets, while continuing to use the common reference data set.

Consider the following scenario. Your enterprise can decide that only some aspects of corporate policy should affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This enables your enterprise to balance autonomy and control for each business unit. For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. Then, you can let managers define their own sales methods, but define payment terms centrally. As a result, each business unit has its own reference data set for sales methods and one central reference data set for payment terms assigned to all business units.

Partitioning

Partitioning reference data and creating data sets provide you the flexibility to handle the reference data to fulfill your business requirements. You can share modular information and data processing options among business units with ease. You can create separate sets and subsets for each business unit. Alternatively, you can create common sets or subsets to enable sharing reference data between several business units, without duplicating the reference data.

The following figure illustrates the reference data sharing method (assignment to one set only, with common values). The user can access the data assigned to a specific set in a particular business unit, as well as access the data assigned to the common set.

Related Topics

- Reference Data Sets and Sharing Methods: Explained
- Defining Default Reference Data Sets: Points to Consider
- Assigning Reference Data Sets to Reference Objects: Points to Consider

Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses. As a result, there is a reduction in the administrative burden and the time to implement new business units. For example, you can share sales methods, or transaction types across business units. You may also share certain other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set affect all business units or application components using that set. You can assign a separate

set to each business unit for the type of object that is being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can determine that certain aspects of your corporate policy can affect all business units. The remaining aspects are at the discretion of the business unit manager to implement. This allows your enterprise to balance autonomy and control for each business unit. For example, your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level. In such a case, you can let managers define their own sales methods, but define payment terms centrally. In this example:

- Each business unit has its own reference data set for sales methods.
- One central reference data set for payment terms is assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly set up data for this entity component. You can establish other business unit reference data in a business unit-specific reference data set as needed.

Reference Data Sharing Methods

Variations exist in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. This method is the simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. This method is the most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units. You need not explicitly assign the transaction types to each business unit. In addition, you can assign a business unit-specific set of transaction types. At transaction entry, the list of values for transaction types includes the following:
  - Transaction types from the set assigned to the business unit.
  - Transaction types assigned to the common set that is shared across all business units.
- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but assign Net 15 to a set specific only to your business unit. At transaction entry, the list of values for payment terms consists of only the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

Related Topics

- Items and Supplier Site Reference Data Sharing: Explained
- What reference data objects can be shared across cost organizations?
- What reference data objects can be shared across project units?
- What reference data objects can be shared across business units?
- What reference data objects can be shared across asset books?

Assigning Reference Data Sets to Reference Objects: Points to Consider

You can assign the reference data sets to reference objects using the Manage Reference Data Set Assignments page. For multiple assignments, you can classify different types of reference data sets into groups and assign them to the reference entity objects. The assignment takes into consideration the determinant type, determinant, and reference group, if any.

Determinant Types

The partitioned reference data is shared using a business context setting called the determinant type. A determinant type is the point of reference used in the data assignment process. The following table lists the determinant types used in the reference data assignment.

Type	Description
Asset Book	Information about the acquisition, depreciation, and retirement of an asset that belongs to a ledger or a business unit.
Business Unit	The departments or organizations within an enterprise.
Cost Organization	The organization used for cost accounting and reporting on various inventory and cost centers within an enterprise.
Project Unit	A logical organization within an enterprise that is responsible for enforcing consistent project management practices.
Reference Data Set	References to other shared reference data sets.

Determinant

The determinant (also called determinant value) is a value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set.

Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data). However, all reference entities are treated alike because of similarity in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups. For example, all tables and views that define Sales Order Type details might be a part of the same reference group. Reference groups are predefined in the reference groups table.

Define ISO Reference Data

Defining Currencies: Points to Consider

When creating or editing currencies, consider these points relevant to entering the currency code, date range, or symbol for the currency.

Currency Codes

You can't change a currency code after you enable the currency, even if you later disable that currency.

Date Ranges

You can enter transactions denominated in the currency only for the dates within the specified range. If you don't enter a start date, then the currency is valid immediately. If you don't enter an end date, then the currency is valid indefinitely.

Symbols

Some applications support displaying currency symbols. You may enter the symbol associated with a currency so that it appears along with the amount.

Related Topics

- What's the difference between precision, extended precision, and minimum accountable unit for a currency?
- Euro Currency Derivation: Explained

Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date. If you have to use a different currency for Euro, you can disable the predefined currency and create a new one.

Derivation Type

The **Euro currency** derivation type is used only for the Euro, and the **Euro derived** derivation type identifies national currencies of EMU member states. All other currencies don't have derivation types.

Derivation Factor

The derivation factor is the fixed conversion rate by which you multiply one Euro to derive the equivalent EMU currency amount. The Euro currency itself must not have a derivation factor.

Derivation Effective Date

The derivation effective date is the date on which the relationship between the EMU currency and the Euro begins.

Natural Languages: Points to Consider

Natural languages are all the languages that humans use, written and spoken. If a language is enabled, then users can associate it with entities, for example as languages spoken by sales representatives. When managing natural languages, consider tasks to perform and best practices for entering particular values.

Tasks

Once you add a language, it can't be deleted, but just disabled. You can optionally associate natural languages with International Organization for Standardization (ISO) languages and territories, just for reference.

Values

When you create a natural language, use the alpha-2 ISO code as the language code, or, if not available, then alpha-3. If the language is not an ISO language, then use **x-** as a prefix for the code, for example **x-ja** for a Japanese dialect. Use the **sgn** code of ISO-639-2 for sign languages, followed by territory code, for example **sgn-US** for American Sign Language. You can also use Internet Assigned Numbers Authority (IANA) language tags.

The natural language description must be the language name with territory name in parenthesis where needed, for example **English (Australia)** and **English (Canada)**.

FAQs for Define ISO Reference Data

When do I create or edit territories?

The predefined territories are countries from the International Organization for Standardization (ISO) 3166 standard. Edit territory descriptions to determine how they are displayed in lists of country values in an application. You don't have to edit territory names or codes unless there is a specific requirement. Create territories if new countries emerge and the application isn't yet patched with the latest ISO country values.

> **Note:** The National Language Support (NLS) territory codes are territory identifiers used in the application. Don't edit the codes unless you must change the association between ISO and the application territory.

When do I create or edit industries?

To meet a specific business need, you may edit industry names or descriptions of industries except for those belonging to the North American Industry Classification System (NAICS). Edit the industry descriptions also to determine how they appear in an application.

You may also create industries that contain customizations not included in the NAICS standards.

When do I associate industries with territories?

To meet specific business needs, you can associate industries with territories. For example, administrators can customize a page in different ways for different sets of users of the same industry, but residing in different countries.

When do I create or enable currencies?

Create or enable any currency for displaying monetary amounts, assigning currency to ledgers, entering transactions, recording balances, or for any reporting purpose. All currencies listed in the International Organization for Standardization (ISO) 4217 standard are supported.

The default currency is set to United States Dollar (USD).

Related Topics

- Defining Currencies: Points to Consider

What's the difference between precision, extended precision, and minimum accountable unit for a currency?

Precision refers to the number of digits placed to the right of the decimal point used in regular currency transactions. For example, USD would have 2 as the precision value for transactional amounts, such as $1.00.

Extended precision is the number of digits placed to the right of the decimal point and must be greater than or equal to the precision value. For calculations requiring greater precision, you can enter an extended precision value such as 3 or 4. That would result in the currency appearing as $1.279 or $1.2793.

Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for a cent.

In Setup and Maintenance work area, search for the Manage Currencies task to set these values for a currency.

What's a statistical unit currency type?

The statistical unit currency type denotes the Statistical (STAT) currency used to record financial statistics in the financial reports, allocation formulas, and other calculations.

When do I create or edit ISO languages?

Edit the names and descriptions of International Organization for Standardization (ISO) languages to determine how they appear in the application. The ISO languages are a part of the ISO 639 standard. If any change to the ISO standard doesn't reflect in the application, you can update the ISO alpha-2 code or add languages to provide up-to-date information.

When do I edit languages?

Installed languages automatically appear on the Manage Languages page. This page also displays all languages that are available for installation and translation. Each dialect is treated as a separate language.

Generally, you don't need to edit any of the detailed fields unless absolutely necessary.

When do I create or edit time zones?

Though all standard time zones are provided, enable only a subset for use in lists of time zone values. You can add time zones if new zones became standard and the application isn't yet patched with the latest values.

Manage Audit Policies

Managing Audit Policies: Explained

Auditing is used to monitor user activity and all configuration, security, and data changes that have been made to an application. Auditing involves recording and retrieving information pertaining to the creation, modification, and removal of business objects. All actions performed on the business objects and the modified values are also recorded. The audit information is stored without any intervention of the user or any explicit user action.

Use audit policies to select specific business objects and attributes to be audited. The decision to create policies usually depends on the type of information to be audited and to the level of detail required for reporting.

Enabling Audit Functionality

For Oracle Applications Cloud, you must configure the business objects and select the attributes before enabling audit. If you enable audit without configuring the business objects, auditing remains inactive. By default, auditing is disabled for all

applications. To enable and manage audit, ensure that you have a role with the assigned privilege Manage Audit Policies (FND_MANAGE_AUDIT_POLICIES_PRIV). For appropriate assignment of roles and privileges, check with your security administrator.

To enable auditing for Oracle Fusion Middleware products, select one of the levels at which auditing is required for that product. The audit levels are predefined and contain the metadata and events to be audited. For more information, see Audit Events for Oracle Applications Cloud Middleware (Doc ID 2114143.1) on My Oracle Support at https://support.oracle.com.

If you don't want an application to be audited, you can stop the audit process by setting the Audit Level option to **None**.

Related Topics

- Audit Events for Oracle Applications Cloud Middleware

Configuring Audit Business Object Attributes: Points to Consider

Audit enables tracking the change history of particular attributes of a business object. However, those objects and their attributes must be selected for audit and auditing must be enabled for that application. Your configuration settings determine which attributes to audit for a given object, and when the audit starts and ends. Auditing takes into account all the operations performed on an object and its attributes, such as create, update, and delete. To configure audit business object attributes, navigate to the Manage Audit Policies page in the Setup and Maintenance work area.

Selecting an Application

To set up auditing, you must select a web application that contains the required business objects that can be audited. From the list of business objects, select those business objects that you want to audit. Selecting a business object also displays its attributes that are enabled for auditing.

Selecting Attributes

For each selected business object to be audited, select the corresponding attributes to include in the audit. All attributes that belong to that object are by default selected for audit and appear on the user interface. However, you can add or remove attributes from the list. When you remove an attribute from the list, you stop auditing it even when the parent object is selected for audit. So, if you want an attribute to be audited, you must add it to the list. If the object selected in an audit hierarchy is also a part of several other audit hierarchies, the attribute configuration for that object is applicable to all the hierarchies in that application.

Tip: For business objects based on flexfields, select the Flexfields (Additional Attributes) check box to view and add or remove flexfield attributes, to include or exclude them from the audit.

Starting and Stopping Audit

The business object is ready for audit after you select its attributes and save the configuration changes. However, to start auditing, the audit level for Oracle Applications Cloud must be set to **Auditing** on the Manage Audit Policies page.

To stop auditing an object, you can deselect the entire object and save the configuration. As a result, all its selected attributes are automatically deselected and are not audited. To continue to audit the business object with select attributes, deselect those attributes that are not to be audited. When users view the audit history for an application, they can specify the period for which they want the results. Therefore, make a note of when you start and stop auditing an application.

For example, users intend to view the audit history of an object for the previous week, but auditing for that object was stopped last month. They wouldn't get any audit results for that week, because during the entire month that object wasn't

audited. Even if you enable audit for that object today, users can't get the wanted results because audit data until today isn't available.

Configuring Audit: Highlights

To set up auditing for Oracle Applications Cloud, use the Manage Audit Policies page in the Setup and Maintenance work area. To set up auditing for Oracle Fusion Middleware products, select the level of auditing mapped to a predefined set of metadata and the events that have to be audited. Information about configuring audit for Oracle Fusion Middleware products is provided in Oracle Fusion Middleware guides.

You can also create a configuration file and deploy it to audit a specific Oracle Fusion Middleware product. The configuration details for Oracle Fusion Middleware products are available as audit-specific assets that you can use to create the config.xml configuration file. To get a list of audit-specific assets, see Audit Events for Oracle Applications Cloud Middleware (Doc ID 2114143.1) on My Oracle Support at https://support.oracle.com.

Oracle Fusion Middleware Products

- Configure business objects to enable auditing in Oracle Fusion Middleware products. Refer to the Oracle Fusion Middleware Security and Administrator's Guide for Web Services.

  See: Auditing Web Services

Oracle Fusion Security Products

- Configure business objects to enable auditing in Oracle Fusion security products. Refer to Oracle Fusion Middleware Application Security Guide.

  See: Oracle Fusion Middleware Audit Framework Reference

Related Topics

- Audit Events for Oracle Applications Cloud Middleware

Audit Impersonation: Explained

Users can temporarily designate other users to impersonate their profiles and perform application tasks on their behalf. By default, all impersonations are audited. In the global area, click your user name and from the Settings and Actions menu, select **Set Preferences**.

At run time, audit setup tracks and stores information about all attributes, whether auditing is enabled for an attribute or not. As a result, impersonation auditing is also active even when auditing is disabled for an application. The audit history captures the impersonator information in addition to the actual user information. Therefore, while viewing audit history, users can retrieve the audited information, filtered by an impersonated user.

To assign or modify impersonations, in the Tasks pane on the Preferences page, click **Proxies**. You can search for the users who can be impersonated and switch the access to that user.

Note: The associated profile option Audit Impersonation Transaction Enabled is enabled by default. To disable it, set its profile value to **No**.

Related Topics

- Proxies: Explained

Manage Oracle Social Network Objects

Managing Oracle Social Network Objects: Explained

Use the Manage Oracle Social Network Objects task for managing the Oracle Social Network Objects. The integration of Oracle Social Network with applications and business processes brings key attributes from the applications to share, socialize, and update information. This helps in making better business decisions based on additional information that you obtain and analyze within your social network environment.

Use the Manage Oracle Social Network Objects page to set up and define:

- The business objects and attributes to enable
- The enablement method for social network integration with Oracle Applications Cloud

To open the Manage Oracle Social Network Objects page, start in the **Setup and Maintenance Overview** page and search for the Manage Oracle Social Network Objects task.

Use Oracle Social Network to:

- Discuss projects and plans in public forums
- Maintain:
  - Membership groups
  - Activity feeds of the people you select
- Facilitate:
  - One-on-one Conversations
  - Reviews
  - Document sharing

Note: Oracle Social Network is currently available in Cloud implementations only.

An important aspect of managing Oracle Social Network objects is enabling business objects for integration.

Enabling Business Objects for Integration

A business object can't be shared within social network until a functional administrator or implementor:

- Accesses the Manage Oracle Social Network Objects page in Oracle Applications Cloud
- Enables the business object for social network integration

Update Translations: Explained

The Update Translations process sends attribute labels and business object names to Oracle Social Network for use in the user interface.

In social network, the attribute or business object labels appear in the language of your locale. If you change the locale in social network, then the attribute or business object labels appear in the updated language. However, the data appears in the language in which it was originally sent to social network. If you have previously sent an instance of the business object to social network, then the instance data isn't updated. Clicking **Update Translations** on the Manage Oracle Social Network Objects page sends translations for business objects with the enablement option as **Manual** or **Automatic**.

Synchronize Business Objects: Explained

Use **Synchronize** on the Manage Oracle Social Network Objects page to synchronize business objects. This resends the definitions of business objects having the enablement option as **Manual** or **Automatic** to Oracle Social Network.

Use the Synchronize button at the:

- **Business Objects table level**: To resend the definitions of a selected business object to social network. This button is enabled only when you select a row for a business object with the enablement option as **Manual** or **Automatic**.
- **Manage Oracle Social Network Objects page level**: To resend the definitions of all business objects with the enablement option as **Manual** or **Automatic** to social network.

Note: If you had modified any business object enabled for social network and not saved your changes, then on clicking **Synchronize**, a warning message appears. This message informs you that you have not saved your changes, and you can select one of the following options:

- **Save and Synchronize**: To save the modified business objects, and synchronize the unmodified business objects.
- **Synchronize**: To ignore any unsaved business objects, and only synchronize the unmodified business objects.
- **Cancel**: To cancel the synchronization task.

FAQs for Manage Oracle Social Network Objects

What happens if I update translations?

When you update translations, you send translations for business objects with the enablement option as **Manual** or **Automatic** to Oracle Social Network.

On updating translations, you also:

- Synchronize the newly translated text from Oracle Applications Cloud so that it can be used within social network. This means you can:
  - Install and enable a new language.
  - Take a language patch at any time.

- Send attribute labels and business object names to social network for use in its user interface.

How can I update translations?

Use **Update Translations** on the Manage Oracle Social Network Objects page for subsequent updates to labels and attributes.

Use the **Update Translations** button at the:

- **Business Objects table level**: To send translations for a selected business object to Oracle Social Network. This button is enabled only when you select a row for a business object with the enablement option as Manual or Automatic.
- **Manage Oracle Social Network Objects page level**: To send translations for all business objects with the enablement option as **Manual** or **Automatic** to social network.

Note: When you save the enablement of a business object to social network, it sends the translations as well. Hence, you need not click **Update Translations** after saving the enablement.

When do I update translations?

Run the **Update Translations** process only after you install a new language pack of Oracle Applications Cloud.

Updating translations synchronizes the newly translated text to Oracle Social Network for integration with Oracle Applications Cloud.

Note: When you save the enablement of a business object to social network, it sends the translations as well. Hence, you need not click **Update Translations** after saving the enablement.

What happens if I synchronize business objects?

When you synchronize business objects, you resend the definitions of business objects having the enablement option as **Manual** or **Automatic** to Oracle Social Network.

When do I synchronize business objects?

Run the Synchronize process after you use customization sets to import the setup from the Manage Oracle Social Network Objects page in another environment.

You can also run the process whenever you want to synchronize the settings of business objects with social network without making changes in the Manage Oracle Social Network Objects page.

Related Topics

- Using Customization Migration to Move Customizations: Points to Consider

Manage Applications Core Common Reference Objects

Define Applications Core Configuration: Overview

The Define Applications Core Configurations task list contains the Oracle Middleware Extensions for Oracle Application (Applications Core) tasks that support implementation of common functionality such as lookups, profile options, document sequences, and so on.

Use this task list to manage configuration objects that are defined centrally and shared across applications, in addition to tasks classified under the Maintain Common Reference Objects task list. You can search for this task list in the Setup and Maintenance work area.

Manage Applications Core Standard Lookups

Lookups: Explained

Lookups are lists of values in applications. You define a list of values as a lookup type consisting of a set of lookup codes, each code's translated meaning, and optionally a tag. End users see the list of translated meanings as the available values for an object.

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 end users to select. For example, the two lookup codes Y and N are defined in the REQUIRED_INDICATOR lookup type.

In another example, a lookup type for marital status has lookup codes for users to specify married, single, or available legal partnerships.

Lookup Type	Lookup Code	Meaning	Tag
MAR_STATUS	M	Married	
	S	Single	
	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
- Customization levels
- Accessing lookups
- Enabling lookups
- The three kinds of lookups: standard, common, and set enabled

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.

Customization Level

The customization 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 customization 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 meanings of predefined lookup codes cannot be modified. Some predefined lookup codes can be changed during implementation or later, as needed.

The customization levels are user, extensible, and system. The following table shows which lookup management tasks are allowed at each customization level.

Allowed Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No
Updating start date, end date, and enabled fields	Yes	Yes, only if the code is not predefined data	No
Deleting codes	Yes	Yes, only if the code is not 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 customization level must be system or extensible to prevent deletion.

Once the customization level is set for a lookup type, it can't be modified. The customization level for lookup types created using the Define Lookups page is by default set at the User level.

Standard, Common, and Set-Enabled Lookups

The available kinds of lookups are as follows.

Lookup	Description
Standard	Lists the available codes and translated meanings

Lookup	Description
Set enabled	Additionally associates a reference data set with the lookup codes
Common	Legacy lookups

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.

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 may define lookups in an application view to restrict the UI pages where they may appear.

In lookups management tasks, lookups may 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 setdeterminant

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.

For more information on the predefined lookups and lookup codes, open the Setup and Maintenance work area, and use the tasks in the Define Lookups task list.

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 allowed 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.

Managing a Standard Lookup: Example

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 only create or edit lookup codes for a particular lookup type if its customization level supports it.

Creating a Lookup Type Called COLORS

Your enterprise needs a list of values for status to be used on various objects such as processes or users. The lookups are colors, so the lookup type you create is COLORS.

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

The lookup codes you define for the COLORS lookup type are, BLUE, RED, GREEN, and YELLOW.

Lookup Code	Meaning	Enabled	Display Sequence
BLUE	Urgent	No	4
RED	Stop	Yes	1
GREEN	Proceed	Yes	3
YELLOW	Caution	Yes	2

The Resulting Data Entry List of Values

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 meanings and the codes are listed here. They appear in the order of the defined display sequence.

Displayed Value	Hidden ID
Stop	RED

Displayed Value	Hidden ID
Caution	YELLOW
Proceed	GREEN

Analysis

The BLUE lookup code was not enabled and does not 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. In this example, the code is stored in the Status column

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

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

Managing Set-Enabled Lookups: Examples

Creating a new set-enabled lookup is similar to creating a standard lookup with the addition of specifying a reference data setdeterminant for the lookup codes. You can only create or edit lookup codes for a particular lookup type if its customization level supports it.

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.

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. If a COLORS lookup type contains a RED, YELLOW, ORANGE, and GREEN lookup code, you can enable one RED lookup as coming from the US reference data set and another RED lookup as coming from the EU reference data set with different meanings.

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

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 this example.

In another example, a lookup type called HOLD_REASON provides a list of reasons for applying a hold to a contract renewal. 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

As per the above example, 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.

FAQs for Manage Applications Core Standard Lookups

How can I access predefined lookups?

Search for predefined lookups using the Define Lookups task list:

1. In the Setup and Maintenance work area, search for the **Define Lookups** task list and expand it to view the tasks.
2. Open the task that corresponds to the lookups you are searching for.
3. 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.

4. Click a lookup type to view its lookup codes.

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

Related Topics

- Using Query By Example: Procedure

How can I edit lookups?

On the Define Lookups page, you can edit the existing lookup codes of a lookup type or add new lookup codes. To open the page, navigate to the Setup and Maintenance work area and search for the Define Lookup task list.

The task list contains three tasks:

- Standard Lookups
- Common Lookups
- Set-enabled Lookups

Each task contains a predefined set of lookup types classified and stored as per the functionality. Open a task to search and edit the required lookup. However, you may not be able to edit a lookup if its customization 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 are central to an application. However, lookup types defined for a specific application are managed using the task or task list 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.

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
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

Area of Difference	Lookup Type	Value Set
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 customization 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 cannot 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 custom search result.

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.

Manage Applications Core Profile Options

Profile Options: Overview

Profile options are a set of preferences that you use to centrally manage the user interface settings and application behavior.

You can use the profile options to manage, for example:

- User preferences to specify language or currency.
- Configuration choices to change the user interface skin or appearance of fonts.
- Processing options to determine how much of an activity needs to be logged and at which level.

In the Setup and Maintenance work area, search for the **Define Profiles** task list. As an administrator or implementer, you can perform the following tasks:

Task Name	Function
Manage Profile Options	Create new profile options or modify existing profile options, except some which are predefined and restricted to prevent any modifications.
Manage Profile Categories	Group the profile options based on their functional similarities.
Manage Administrator Profile Values	Set the profile values for the enabled profile options to control application behavior.

Task Name	Function

For information on the predefined profile options, open the Setup and Maintenance work area, and use the Manage Profile Options task.

Hierarchy in Profile Levels: Explained

The hierarchy in profile levels determines the context for making a profile option effective.

You can enable a profile option at the following levels:

- Site level (lowest): The entire site of deployment
- Product level: A specific product component within the application
- User level (highest): A specific user

After you create or edit a profile option on the Manage Profile Options page, you must enable it. You can enable it at multiple levels. The setting at the highest enabled level takes precedence over the lower levels. User level is at the top of the hierarchy and always takes precedence over the settings at the product or site level.

On the Manage Administrative Profile Values page, set the profile value at any of the enabled levels of the profile option.

Example of Profile Option Hierarchy

The following table shows an example of setting the currency profile option at different levels.

Profile Level	Hierarchy	Value Corresponding to the Selected Profile Level	Currency
Site	Lowest	NA	Euro
Product	Higher than Site	General Ledger	UK Pound Sterling
User	Highest	John Smith	US Dollar

For this example, both John Smith and Jane Lee are General Ledger users. However, based on the profile settings, John Smith would see US Dollar as the default currency, whereas Jane Lee would see UK Pound Sterling. Mary, who is neither a General Ledger user nor has any user-level preference defined, will see Euro as the default currency.

Setting Profile Option Values: Procedure

Each profile option contains specific values that determine how it affects the application. You can add or modify the values for each profile option. Select or enter the value for one or more of the available levels (site, product, and user) so that each setting takes effect at the intended level.

Setting the Profile Value

1. In the Setup and Maintenance work area, search for and open the **Manage Administrator Profile Values** task.
2. Search for and select the profile option.
3. In the Profile Values section, click Add. A new row is added for you to specify the following conditions:
    - Profile Level: Specify the level at which the profile value is to be set. If the profile value applies to the entire site, select **Site**.

- Product Name: If you select **Product** as the profile level, select a product and specify the associated profile value.
- User Name: If you select **User** as the profile level, select the user name and specify the associated profile value.
- Profile Value: Select or enter the value corresponding to the selected profile level.

Note: For an existing entry, you can modify only the profile value.

4. Repeat step 3 to add more rows and set the profile values.
5. Click **Save and Close**.

Note: Changes in the profile values take effect for a user on the next sign in.

Creating and Editing Profile Options: Procedure

Use profile options to centrally manage user preferences and control the general function of applications. For example, you can control user preferences involving language, date, time, currency, and other similar general settings.

You can create a profile option and also determine the level at which that profile option takes effect. You can also define the profile values for the profile option. The profile values appear on the Manage Administrator Profile Values page when you select the profile option.

Creating a Profile Option

1. In the Setup and Maintenance work area, search for and open the **Manage Profile Options** task.
2. Click **Actions - New**.
3. On the Create Profile Option page, fill all the fields with relevant details with specific attention to the following:
   - Use the SQL Validation field to provide an SQL statement that displays the permissible profile values to be used. Using an SQL statement, you can select the values from another table and display them as a list of values.
     For example, to display the values **Yes** and **No** from a lookup table, you can use the following SQL statement:
     ```
     select MEANING, LOOKUP_CODE from FND_LOOKUPS where LOOKUP_TYPE='YES_NO'
     ```
     As a result, on the **Manage Administrator Profile Values** page, the profile values Yes and No are available for selection for that profile option.
   - You can specify a date range to keep the profile option active during that period. Beyond the specified duration, the profile option automatically becomes inactive. If you no longer require the profile option, you must manually delete it from the **Manage Profile Options** page.
4. Click **Save and Close**.
5. On the Manage Profile Options page, search for the newly created profile option and from the results, select it.
6. In the Profile Option Levels section, do the following:
   a. Under **Enabled**, select the levels at which you want to enable the profile option.

      Note: You can enable a profile option at multiple levels, but a higher-level profile value overrides a lower-level value. Therefore, enable them only at the required levels.

   b. Under **Updatable**, select the profile level at which you want implementors to have update privileges. Leave the check box deselected if you don't want the implementors to modify the profile values (they appear in read-only mode).

7. Click **Save and Close**.

To edit a profile option that you created, search for it and edit the necessary details.

Managing Profile Categories: Points to Consider

You can create profile categories to group profile options based on their functional similarities and their use. In the Setup and Maintenance work area, search for the **Manage Profile Categories** task.

Profile categories help administrators or implementors in retrieving profile options using a search criterion on the **Manage Administrator Profile Values** page.

Managing Profile Categories

Consider the following options while managing profile categories:

- Create profile categories and add existing profile options to them
- Add newly created profile options to existing custom profile categories

Note: While you can add a profile option to more than one category, some profile categories are predefined and restricted from any modifications. So, you can't edit them or add profile options to them.

Setting Display Sequence for the Profile Options

You must set the display sequence for each profile option that you add to a profile category. Display sequence determines the order in which the profile options appear in a search result, based on the profile category. You can set the sequence beginning with zero or one for the first profile option to display, and proceed sequentially to assign the values to the remaining profile options.

The following table demonstrates the effect of the display sequence on the profile options when they are retrieved as search results.

Profile Category	Included Profile Option - Assigned Display Sequence	Display Sequence of Profile Options in the Search Results
Attachments	• Attachment File Directory - 2 • Indicate Attachments - 1	1. Indicate Attachments 2. Attachment File Directory

How can I access predefined profile options?

Search for predefined profile options using the Define Profiles task list:

1. In the Setup and Maintenance work area, search for the **Manage Profile Options** task and open it.
2. Enter any of the search parameters and click **Search**.

   Tip: If you don't know the profile option code or the display name, use the **Application** or **Module** fields to filter search results.

3. Click a profile option to view its details.

Manage Applications Core Administrator Profile Values

Profile Options and Related General Preferences: How They Work Together

The general preferences such as Language, Territory, or Date Format that you access from the global area have corresponding predefined profile options.

General Preferences

When users define their preferred Date Format, Language, or Currency, they are setting the value of a profile option at the user level.

Profile Options

When users don't specify anything as their preferences, the Site level profile option takes effect.

Setting Up for General Troubleshooting: Points to Consider

To help the help desk troubleshoot issues that users encounter in the application, users can record the issue while they reproduce it. Some advanced users might also need detailed information in the About This Page dialog box. Setting up for troubleshooting involves making sure that users have the right access, and determining how many users can record at the same time.

Access

Check with your security administrator that the appropriate users are assigned roles that inherit the following privileges:

- **Record and View Issue (FND_RECORD_AND_VIEW_ISSUE_PRIV):** To create a basic recording
- **Set Issue Recording Advanced Options (FND_SET_ISSUE_RECORDING_ADVANCED_OPTIONS_PRIV):** To set advanced options before starting the recording
- **View Version Information (FND_VIEW_VERSION_INFORMATION_PRIV):** To see the versions that technical components of the application are on

Number of Users

Recordings are stored on servers, and by default, up to five users can record at the same time on each server. For performance reasons, you can set the Maximum Number of Users Allowed to Record Issues (ORA_FND_RECORD_ISSUE_MAX_USERS) profile option to a number lower than five.

Related Topics

- Recording Issues to Troubleshoot: Procedure
- How can I view the version information of an application?

Managing Profile Option Values for CORS Headers: Points to Consider

You can set profile option values for the CORS headers using the Manage Administrator Profile Values task in the Setup and Maintenance work area.

CORS Headers

This table lists the CORS headers that you can set profile option values for.

CORS Header	Profile Option Name (Profile Option Code)	Profile Option Values
Access-Control-Allow-Origin	Allowed Domains (ORACLE. ADF. VIEW. ALLOWEDORIGINS)	Valid values for allowed origins: • URL of the specific origin, for example, http://www.mydomain.com • Comma-separated list of origins, for example, http://www.mydomain.com, http://adc6160507.us.oracle.com, http://software.dzhuvinov.com • ***** to allow access to resources from all origins • Empty (no value set) to prevent access to resources from any origin **Note:** You must set a value for this header to enable CORS.
Access-Control-Max-Age	CORS: Access-Control-Max-Age (CORS_ ACCESS_ CONTROL_ MAX_AGE)	Default value for caching preflight request is 3600 seconds.
Access-Control-Allow-Methods	CORS: Access-Control-Allow-Methods (CORS_ ACCESS_ CONTROL_ ALLOW_ METHODS)	Default values for allowed methods are **OPTIONS**, **HEAD**, **GET**, **POST**, **PUT**, **PATCH**, **DELETE**.
Access-Control-Allow-Headers	CORS: Access-Control-Allow-Headers (CORS_ ACCESS_ CONTROL_ ALLOW_ HEADERS)	Default values for allowed headers are **Accept**, **Accept-Encoding**, **Cache-Control**, **Content-MD5**, **Content-Type**, **If-Match**, **If-None-Match**,**Origin**, **User-Agent**, **X-HTTP-Method-Override**, **X-Requested-By**. **Note:** You must include `Authorization`, with a comma as the delimiter, to the list of allowed headers. For example: **Accept**, **Accept-Encoding**, **Cache-Control**, **Authorization**
Access-Control-Allow-Credentials	CORS: Access-Control-Allow-Credentials (CORS_ ACCESS_ CONTROL_ ALLOW_ CREDENTIALS)	• **True** to enable sending credentials with the request • **False**, which is the default value, to disable sending credentials with the request

Related Topics

- CORS: Explained

How can I enable the privacy statement?

In the Setup and Maintenance work area, open the Manage Applications Core Administrator Profile Values task and search for the **Privacy Statement URL** profile option. In the profile values section, update the **Profile Value** text box with the full URL of the web page containing the privacy content.

In the global area, click your user name and from the Settings and Actions menu, select **About This Page.**. Click **Privacy Statement** to view the linked web page.

How can I make message components visible only to specific users?

Use the Manage Administrator Profile Values task to determine the visibility of the message components. For the **Message Mode** profile option, set the profile value to either User or Administrator. Based on the set value, the administrator or user actions and details appear for the intended audience.

However, the message components are visible to the audience based on their predefined access rights. Anyone having a user level access can't view the Administrator message components. If you set the profile value to the administrators of a specific product, the message components are visible only to that specific audience.

> **Note:** If you don't set any value to the profile option, the visibility of the message component is determined by the default profile option settings.

Manage Applications Core Descriptive Flexfields

Flexfields: Overview

A flexfield is an extensible set of placeholder fields associated with business objects and placed on the application pages. You can use flexfields to extend the business objects and meet enterprise data management requirements without changing the data model or performing any database programming. Flexfields help you to capture different data on the same database table.

For example, an airline manufacturer may require specific attributes for its orders that aren't predefined. Using a flexfield for the order business object, you can create and configure the required attribute.

Flexfields that you see on the application pages are predefined. However, you can configure or extend the flexfields, or modify their properties. Users see these flexfields as field or information attributes on the UI pages. To use flexfields, search for and open the **Define Flexfields** task list in the Setup and Maintenance work area. You can use the following tasks contained within it:

- **Manage Descriptive Flexfields**: Expand the forms on the application page to accommodate additional information that is important and unique to your business. You can use a descriptive flexfield to collect custom invoice details on a page displaying invoices.
- **Manage Extensible Flexfields**: Establish one-to-many data relationships and make application data context-sensitive. The flexfields appear only when the contextual data conditions are fulfilled. Thus, extensible flexfields provide more flexibility than the descriptive flexfields.
- **Manage Key Flexfields**: Store information combining several values, such as a number combination. The key flexfields represent objects such as accounting codes and asset categories.
- **Manage Value Sets**: Use a group of values to validate the data entered in the flexfields.

Note: You can manage value sets within the Manage Descriptive Flexfields or Manage Extensible Flexfields tasks.

For more information about specific predefined flexfields, open the Setup and Maintenance work area, and use the tasks in the Define Flexfields task list.

Types of Flexfields

The following three types of flexfields provide a means to customize the applications features without programming:

- Descriptive
- Extensible
- Key

Related Topics

- Descriptive Flexfields: Explained
- Extensible Flexfields: Explained
- Key Flexfields: Explained

Flexfield Components: Explained

A flexfield is made up of several data entities that store and render information pertaining to flexfield configuration.

Flexfields are made up of the following components:

- Segments
- Value Sets
- Contexts
- Structures

Segments

A segment is a field within a flexfield and represents a single table column of your database. When configuring a flexfield, define the appearance and meaning of individual segments. Segments represent attributes of information. Segments can appear globally wherever the flexfield is implemented, or based on a structure or context. Each segment captures a single atomic value and represents an attribute of information.

The characteristics of a segment vary based on the type of flexfield in which it's used.

- In key flexfields, a segment describes a characteristic of the entity. For example, a part number that contains details about the type, color, and size of an item.
- In a descriptive or extensible flexfield, a segment represents an information attribute on the application page. For example, details about a device containing components, some of which are global while the remaining are contextually dependent on the category of the device.

Value Sets

Users enter values into segments while using an application. A value set is a named group of values that validate the content of a flexfield segment. You configure a flexfield segment with a value set to enforce entries of only valid values for that segment.

The configuration involves the following tasks:

- Defining the values in a value set, including characteristics such as the length and format of the values.
- Specifying formatting rules or values from an application table or predefined list.

Multiple segments within a flexfield, or multiple flexfields, can share a single value set.

Contexts

Context-sensitive flexfield segments are available to an application based on a context value. You define contexts as part of configuring a flexfield. Users see global segments as well as any context-sensitive segments that apply to the selected context value.

In descriptive flexfields and extensible flexfields, you can reuse the context-sensitive segments that are based on the database columns, in multiple contexts.

Structures

Key flexfields have structures. Each key flexfield structure is a specific configuration of segments. Adding or removing segments, or rearranging their order, produces a different structure. You can reuse the segments that are based on the database columns, in multiple structures.

Related Topics

- Value Sets: Explained

Configuring Flexfields: Overview

Configuring a flexfield ranges from identifying the need for extending a business object with custom attributes to integrating the custom attributes into the deployment. In the case of key flexfields, configuring the flexfield involves identifying value set assignments and determining segment structures.

Overall Process for Configuring Custom Attributes

For descriptive and extensible flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan flexfield validation.
4. Define the attributes by configuring the flexfield segments.
    a. Use the Manage Extensible Flexfields or Manage Descriptive Flexfields tasks, or use the **Configure Flexfield** icon button directly on the page where the flexfield is highlighted. For simple configurations, use the **Add Segment**, **Add Context Value**, and **Edit Segment** icon buttons directly on the page where the flexfield is highlighted.
    b. Optionally, validate the flexfield configuration.
    c. Optionally, deploy the flexfield to a sandbox for initial testing.
5. Deploy the flexfield to the mainline metadata to display the custom attributes on the application pages and to make them available for integration with other tools such as Oracle Business Intelligence.
6. Perform the necessary steps to integrate the custom attributes into the technology stack.

A simple configuration is limited to such actions as adding a format-only field or adding a field with a basic list of values.

Overall Process for Configuring Custom Keys

Using key flexfields, you can configure intelligent key codes comprised of meaningful parts according to your business practices. You configure the key flexfield to have one segment for each part that makes up your key code.

For key flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan the flexfield validation.
4. Define the value sets before configuring the key flexfield segments by going to the Manage Value Sets task.
5. Define the key flexfield structures and their segments, and define structure instances for each structure.
   a. Use the Manage Key Flexfields task or the **Configure Flexfield** icon button directly on the page where the flexfield is highlighted.
   b. Optionally, validate the flexfield configuration.
   c. Optionally, deploy the flexfield to a sandbox for initial testing.
6. Deploy the flexfield to the mainline metadata to display it on the application pages and to make it available for integration with other tools such as Oracle Business Intelligence.
7. Perform the necessary steps to integrate the flexfield into the technology stack.

Related Topics

- Extensible Flexfields: Explained
- Descriptive Flexfields: Explained
- Key Flexfields: Explained

Flexfields at Run Time: Explained

Business objects have an associated descriptive or extensible flexfield. Using these, you can create custom attributes for the business object at run time. Some business objects have an associated key flexfield for configuring flexible multiple part keys.

Finding Flexfields on a Page

At run time, the custom attributes you define as flexfield segments appear in the application page just like any other attribute. However, each type of flexfield appears in a different way.

The following characteristics help you determine the type of flexfield on the application page:

- Descriptive flexfield segments appear as label and field pairs or as a table of fields that correspond to the column headers. The fields represent the flexfield segments and accept values that derive from the segment's assigned value set.
- Extensible flexfield segments appear grouped within labeled regions, where each grouping is a context and the region labels are the context names.
- Key flexfields appear in the application page as a field with a key flexfield icon, where the field's value is a collection of segments.

To locate flexfields on a page, in the global area, select your user name and under the Settings and Actions menu, select **Highlight Flexfields**. The page renders in a special mode, displaying the location of flexfields, if any, on the page. Do the following:

- Hover over the **Information** icon to view flexfield details.
- Click the **Configure Flexfield** icon to manage the flexfield using the Manage Flexfields task.

- Click the **Add Context Value**, **Add Segment**, or **Edit Segment** icons to add a context value or edit a global or context-sensitive flexfield segment. This applies to both descriptive and extensible flexfields.

Note: Not all flexfields are available for creating custom attributes. For example, some flexfields are protected, and you either can't edit their configurations at all, or can do only limited changes to them. Consult the product-specific documentation in Oracle Fusion Applications Help to verify whether there are any restrictions on using the flexfield.

All segments of a single flexfield are grouped together by default. The layout and positions of the flexfield segments depend on where the application developer places the flexfield on the page. Flexfields may also be presented in a separate section of the page, in a table, or on their own page or a dialog box. You can use Oracle Composer to edit the layout, position, or other display features of the flexfield segments.

When you no longer want to view the flexfields on a page, select **Unhighlight Flexfields** from the Administration menu.

Customizing Flexfields Using Page Composer: Explained

Using Page Composer, you can create customizations to flexfields that are specific to a page.

In Page Composer, to customize:

- Extensible flexfields, open the page in Source view, and look for a region that is bound to an EffContextsPageContainer task flow. This is the container for the extensible flexfield attributes and contexts. To view the flexfield code and identifying information, open the properties panel for the region. To customize any component within the region, select the desired tag and click Edit.
- Descriptive flexfields, open the page in Source view, and look for `<descriptiveFlexfield>` elements. Open the properties panel for the element to view the flexfield code and identifying information. Within the properties panel, you may customize properties for the global and context-sensitive segments or re-order the segments on the page.

Flexfields and Oracle Applications Cloud Architecture: How They Work Together

To capture additional data, administrators or implementors configure flexfield segments that represent attributes of business objects. Business objects are enabled for both descriptive flexfields and extensible flexfields.

The following figure shows the layers involved in configuring a flexfield:

- The business entity table and metadata in the database.
- The ADF business component objects. These are derived from the metadata and stored in Oracle Metadata Services (MDS) repository.
- The user interface where fields defined by the flexfield segments are rendered.

The flexfield definition consists of all the metadata defined during configuration and stored in the database.

Application developers create a flexfield and register it so that it's available for configuration. Administrators and implementation consultants configure segments and other properties of the available flexfields. This information is stored as additional flexfield metadata in the database. Deploying the flexfield generates ADF business components based on the flexfield metadata in the database.

The following aspects are important in understanding how flexfields and Oracle Applications Cloud architecture work together:

- Integration
- Deployment

- Import and export
- Run time
- Patching

Integration

The attributes that you add by configuring flexfields are available throughout the Oracle Fusion Middleware technology stack. You can use the flexfield segment's Application Programming Interface (API) to identify segments and integrate the flexfields in the following:

- User interface pages
- Service-oriented Architecture (SOA) infrastructure
- Oracle Business Intelligence
- Extended Spread Sheet Database (ESSbase)

Flexfield configurations are preserved across application updates.

Deployment

The metadata for the flexfield is stored in the application database as soon as you save your configuration changes. Deploying the flexfield generates the ADF business components so that the run time user interface reflects the latest flexfield definition in the metadata.

Importing and Exporting

Using the Setup and Maintenance work area, you can import and export flexfields across the implementation site. The deployment status must be either Deployed or Deployed to sandbox. Therefore, before you attempt migration, verify and ensure that a flexfield is successfully deployed.

Run Time

The latest definitions of a flexfield reflect on the user interface at run time only if the flexfield is deployed. When the user interface accesses a business object, the deployed flexfield definition identifies the attributes associated with the captured values. On a page, if you add display customizations for a flexfield using Oracle Composer, the same flexfield segments can appear differently on different pages.

Patching

Flexfield configurations are preserved during patching and upgrading.

Flexfields and Value Sets: Highlights

Before you use flexfields to create custom attributes, you should be familiar with the customization layers and the customization life cycle of Oracle Applications Cloud. In addition to the extensive help content available about configuring flexfields, consider the resources below for adding flexfields to business components and alternatives to flexfields where flexfields can't be enabled.

For more information about specific predefined flexfields, open the Setup and Maintenance work area, and use the tasks in the Define Flexfields task list. For customization not available through the tasks and user interface pages, contact My Oracle Support at http://www.oracle.com/pls/topic/lookup?ctx=acc=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc=trs if you are hearing impaired.

Note: Don't use Oracle JDeveloper to customize flexfields.

Before Configuring Flexfields

You can add custom attributes to a business object using a flexfield, if a flexfield has been registered for that object by developers.

- For Oracle Sales Cloud, use Application Composer to add custom attributes instead of using descriptive and extensible flexfields.

Deploying Flexfields

- For information about synchronizing the updated XML schema definition (XSD) files in MDS repositories for each SOA application, refer to the Oracle Fusion Applications Extensibility Guide for Developers.

  See: Customizing SOA Composite Applications

  - Oracle ADF services used by SOA composites expose the Web Services Description Language (WSDL) schemas where deployed flexfields are stored.

Oracle Business Intelligence

- For information about importing business intelligence-enabled flexfield changes into the Oracle Business Intelligence repository, refer to the Oracle Transactional Business Intelligence Administrator's Guide.

  See: Enabling Flexfields for Business Intelligence Reporting

  See: Importing Changes to Flexfields Automatically

Related Topics

- Exporting and Moving Customizations: Points to Consider
- Defining Fields: Explained

Manage Applications Core Descriptive Flexfields: Manage Flexfields

Managing Flexfields: Points to Consider

Managing flexfields involves registering, planning, and configuring flexfields.

You plan and configure the registered flexfields provided in your applications by applications developers. How you configure flexfield segments determines how the flexfield segments appear to users. Optionally, you can customize the UI page to change how the flexfield segments appear to users on that page.

The figure shows the processes involved in making flexfields available to users. The tasks in the Define Flexfields activity let administrators configure and deploy flexfields. After you configure and deploy a flexfield to a sandbox, deploy it again to the mainline metadata so that it's available to the users.

Consider the following aspects of managing flexfields:

- Registering flexfields
- Planning flexfields
- Configuring flexfields
- Enabling a flexfields segment for business intelligence
- Deploying flexfields

- Optionally changing a flexfield segment's appearance in a user interface page
- Identifying flexfields on a run time page and troubleshooting

Registering Flexfields

A flexfield must be registered before it can be configured. Therefore, application development registers flexfields so that they are available to administrators and implementation consultants for configuration. The registration involves reserving columns of entity tables for use in flexfields. For more information about registering flexfields, see Oracle Fusion Applications Developer's Guide.

Planning Flexfields

Before you begin planning flexfields, determine what type is appropriate to your needs, and which business objects are available for customizing flexfields. All flexfields consist of segments which represent attributes of an entity. The value a user enters for an attribute is stored in a column of the entity table. Carefully plan flexfields before configuring them. Before configuring new segments for your flexfields, be sure to plan their implementation carefully.

If you have determined that a business object supports flexfields, and those flexfields have been registered, you can begin planning their configuration. Note the code name of the flexfield you intend to configure so that you can find it easily in the Define Flexfield activity. In some cases you can customize how the flexfield appears on the page. See Oracle Applications Cloud Help for specific products to determine any restrictions on using product-specific flexfields.

Configuring Flexfields

Administrators or implementors configure flexfields so they meet the needs of the enterprise. Some flexfields require configuration to make an application operate correctly. You can configure flexfields using the following methods:

- Go to the manage flexfield tasks in the Setup and Maintenance work area.
- Use the Highlight Flexfields command in the Administration menu while viewing a run time page.
  - Use the **Configure Flexfield** icon button to manage all aspects of a flexfield, such as change a segment's sequence number or configure a flexfield segment's business intelligence label.
  - Use the **Add Segment** and **Edit Segment** icon buttons to add and edit descriptive or extensible flexfield segments with simple configurations.
  - Use the **Add Context** icon button to add descriptive or extensible flexfield context values.

Configuring a flexfield includes the following:

- Defining value sets against which the values entered by users are validated
- Defining the structure or context of the segments in the flexfield
- Specifying the identifying information for each segment
- Specifying the display properties such as prompt, length and data type of each flexfield segment
- Specifying valid values for each segment, and the meaning of each value within the application

Tip: You can create value sets while creating descriptive and extensible flexfield segments. However, define value sets before configuring key flexfield segments that use them, because you assign existing value sets while configuring key flexfield segments.

When creating table-validated, independent, dependent, or subset value sets while creating descriptive and extensible flexfield segments, you can optionally specify to display the description of the selected value to the right of the segment at run time. You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order based on the segments' sequence numbers. You cannot enter a number for one segment that is already in use for a different segment. Therefore, you may consider numbering the segments in multiples, such as 4, 5, or 10, to make it easy to insert new attributes.

A flexfield column is assigned to a new segment automatically, but you can change the assignment before saving the segment. If you must set a specific column assignment for a segment, create that segment first to ensure that the intended column isn't automatically assigned to a different segment.

Enabling a Flexfield Segment for Business Intelligence

You can enable flexfield segments for business intelligence if the flexfield is registered in the database as an Oracle Business Intelligence-enabled flexfield. For more information about enabling segments for business intelligence, see points to consider when enabling descriptive, extensible, and key flexfield segments for business intelligence. For extensible flexfield segments, you can't assign labels to equalize segments across contexts that are semantically equivalent.

Deploying Flexfields

Once you have configured a flexfield, you must deploy it to make the latest definition available to run time users. In the Define Flexfields tasks, you can deploy a flexfield using either of the following commands:

- The Deploy Flexfield command deploys a flexfield to the mainline metadata. This command is for general use in a test or production environment.
- The Deploy to Sandbox command deploys a flexfield to sandbox. This command is for confirming that the flexfield is correctly configured before deploying it to the mainline metadata.

In Highlight Flexfields mode, when using the:

- **Add Context**, **Add Segment**, and **Edit Segment** tools for extensible flexfields, use the Save command to save your changes. Then use the Deploy command to deploy the flexfield to the mainline metadata
- **Add Segment** and **Edit Segment** tools for descriptive flexfields, use the Save and Deploy command to save your changes. Then deploy the flexfield to the mainline metadata

Once deployed, the deployment status indicates the state of the currently configured flexfield relative to the last deployed definition.

Optionally Changing a Flexfield Segment Appearance

The flexfield attributes that you define integrate with the user interface pages where users access the attributes' business object. Application development determines the UI pages where business objects appear and the display patterns used by default to render flexfield segments.

After a flexfield has been deployed to the mainline MDS repository so that it appears on application pages, you can customize it on a per-page basis using Page Composer. For example, you can hide a segment, change its prompt or other properties, or reorder the custom global attributes so that they are interspersed with the core attributes in the same parent layout. You can customize the appearance of descriptive and extensible flexfield segments in the UI page using Page Composer, once the flexfield is deployed to the mainline metadata.

If the applications are running in different locales, you can provide different translations for translatable text, such as prompts and descriptions. Enter translations using the locale that requires the translated text. In the global area, click your user name and from the **Settings and Actions** menu, select **Set Preferences**. Then change the text to the translated text for that locale.

Identifying Flexfields on a Run Time Page

The **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area identifies the location of flexfields on the run time page by displaying an **Information** icon button for accessing details about each flexfield.

Even if a descriptive or extensible flexfield isn't yet deployed and no segments appear on the run time page in normal view, the flexfield appears in the Highlight Flexfield view for that page. For descriptive flexfields, the segments as of the last deployment appear. For extensible flexfields, any segments and contexts that have been saved but not yet deployed also appear as disabled.

Highlight Flexfields accesses the current flexfield metadata definition. Use the highlighted flexfield's **Configure Flexfield** icon button to manage flexfields directly. Alternatively, note a highlighted flexfield's name to search for it in the tasks for managing flexfields.

For more information about creating flexfields and adding them to a UI page, see the Oracle Fusion Applications Developer's Guide. For more information about customizing flexfield segment appearance with Page Composer, see guidance on customizing existing pages in the Oracle Fusion Applications Extensibility Guide.

Related Topics

- Managing Descriptive Flexfields: Points to Consider
- Value Sets: Explained
- Managing Extensible Flexfields: Points to Consider
- Managing Key Flexfields: Points to Consider

Flexfield Segment Properties: Explained

Independent of the value set assigned to a segment, segments may have properties that affect how they are displayed and how they function.

The following aspects are important in understanding

- Display properties
- Properties related to segment values
- Properties related to search
- Range validation segments
- Rule validation of segment values
- Naming conventions

Display Properties

The following table summarizes display properties.

Property	Description
Enabled	Whether the segment can be used.
Sequence	The order the segment appears in relation to the other configured segments.
Prompt	The string to be used for the segment's label in the user interface.
Display type	The type of field in which to display the segment.
Selected and deselected values	If the display type is check box, the actual values to save. For example, Y and N or 0 and 1.
Display size	The character width of the field.
Display height	The height of the field as measured in visible number of lines when the display type is a text area.

Property	Description
Read only	Whether the field should display as read-only, not editable text.
Description help text	The field-level description help text to display for the field. Use description help text to display a field-level description that expands on or clarifies the prompt provided for the field. If description help text is specified, a Help icon button is displayed next to the field in the run time application. The description help text is displayed when the user hovers over the Help icon button.
Instruction help text	The field-level instruction help text to display for the field. Use instruction help text to provide directions on using the field. If instruction help text is specified, it's appears in an in-field help note window when users move the cursor over the field.

Properties Related to Search

Extensible flexfield segments can be marked as selectively required in search using the indexed property. The indexed property requires users to enter a value before conducting a search on the attribute represented by the indexed segment. A database administrator must create an index on the segment column representing the indexed attribute.

Range Validation of Segments

Range validation enables you to enforce an arithmetic inequality between two segments of a flexfield. For example, a product must be ordered before it can be shipped. Therefore, the order date must be on or before the ship date. Also, the order date segment value must be less than or equal to the ship date segment value. You can use range validation to ensure this relationship.

The conditions for range validation are as follows:

- Segments must be configured for range validation in pairs, one with the low value and one with the high value.
- Both segments must be of the same data type.
- Both segments must be parts of the same structure in a key flexfield or parts of the same context in a descriptive flexfield or extensible flexfield.
- The low value segment must have a sequence number that is lesser than that of the high value segment.
- Non-range validated segments can exist between a range validated pair, but range validated pairs cannot overlap or be nested.

You can configure as many range validated pairs as you want within the same flexfield. Your application automatically detects and applies range validation to the segment pairs that you define, in sequence order. It must detect a low value segment first, and the next range validated segment that it detects must be a high value segment. These two segments are assumed to be a matching pair. The low value and the high value can be equal.

Rule Validation of Segment Values

Validation rules on descriptive and extensible flexfield segments determine how an attribute is validated. The value entered for an attribute on a business object may must match a specified format or be restricted to a list of values. Use a value set to specify the validation rules.

Value set validation is required for global segments and context-sensitive segments, and optional for context segments. In the case of context segments, the application may validate a value instead of the value set validating the value against the context segment. However the application entered values must match exactly the valid context segment values. If the context segment values are a superset or subset of the input values, you must assign a table-validated value set or independent value set to validate context values.

When you configure a descriptive flexfield segment, you can specify a constant to use for setting the initial value. The initial value can be an available parameter. For every planned segment, list the constant value or parameter, if any, to use for the initial value.

Naming Conventions

Enter a unique code, name, and description for the segment. These properties are for internal use and not displayed to end users. You can't change the code after the segment is created.

The Application Programming Interface (API) name is a name for the segment that isn't exposed to users. The API name is used to identify the segment in various integration points including web services, rules, and business intelligence. Use alphanumeric characters only with a leading character. For example, enter a code consisting of the characters A-Z, a-z, 0-9 with a non-numeric leading character. The use of spaces, underscores, multi-byte characters, and leading numeric characters isn't permitted. You can't change the API name after the segment has been created.

Related Topics

- Managing Extensible Flexfields: Points to Consider

Flexfields Segments: How They Are Rendered

Flexfield segments appear on pages as attributes of business objects.

Settings That Affect Flexfield Segment Display

When you configure flexfield segments, the value you enter for the segment's display type determines how the segment appears at run time.

How Display Type Values Appear

The following figures represent how the display types render on the UI at run time. Each display type screenshot is assigned an alphabet that maps to the display type and its description in the table.

This figure contains the representation of a check box, a drop-down list, a list of values, and a search box.

A. Check Box

B. Drop-down List

C. List of Values

D. Pop-up List of Values

This figure contains the representation of a radio button group, text area, text box, date and time, and rich text editor.

This figure contains the representation of a color palette and a static URL field.

J. Color

K. Static URL

The following table describes each display type.

Display Type	Figure Reference	Description
Check Box	A	The field appears as a check box. If the user selects the check box, the checked value is used. Otherwise, the deselected value is used.
List	B	The field appears as a list of values available to the user for selection.
List of Values	C	The field appears as a list of values available to the user for selection. The user can also click Search to find more values.
Text Field with Search	D	The field appears as a text field with a Search icon button. The users can type a value in the text field or they can click the Search icon button to open another window for searching.

Display Type	Figure Reference	Description
Radio Button Group	E	The field appears as a set of radio buttons. The user can select one button. Selecting a button deselects any previously selected button in the set.
Text Area	F	The field appears as a text area in which the user can type multiple lines of text. The display width and height specify the visible width and number of lines in the text area, respectively.
Text Box	G	The field appears as a text field in which the user can type a single line of text. The display width controls the width of the text box.
Date Time	H	The field enables the user to enter a date if the data type is Date, or a date and time if the data type is Date Time. The user can select the date in a calendar. If the data type is Date Time, the field also displays fields for specifying the hour, minutes, seconds, AM or PM, and time zone.
Rich Text Editor	I	The field appears as a text area in which the user can enter and edit multiple lines of formatted text. The display width and height specify the visible width and number of lines in the rich text editor, respectively. **Note:** This display type is available for extensible flexfields only.
Color	J	The field displays a color palette for the user to select a color at run time and assign it to the segment. During setup, this display type appears in the list for selection only if: • You are working on an extensible flexfield segment. • The value set for the segment is set to **ORA_FND_COLOR_#RRGGBB**.
Static URL	K	The field appears as a text field in which users can enter a fixed URL that opens the web page when clicked. **Note:** The length of the URL must not exceed 255 characters.
Hidden		The field isn't displayed.

Flexfields and Value Sets: How They Work Together

Value sets are specific to your enterprise. When gathering information using flexfields, your enterprise's value sets validate the values that your users enter based on how you defined the value set.

You can assign a value set to any number of flexfield segments in the same or different flexfields. Value set usage information indicates which flexfields use the value set.

The following aspects are important in understanding how flexfields and value sets work together:

- Defining value sets
- Shared value sets
- Deployment

Defining Value Sets

As a key flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfields, you can define value sets when adding or editing a segment.

Note: Ensure that changes to a shared value set are compatible with all flexfield segments that use the value set.

Shared Value Sets

When you change a value in a shared value set, the change affects the value set for all flexfields that use that value set. The advantage of a shared value set is that a single change propagates to all usages. The drawback is that the change shared across usages may not be appropriate in every case.

Value Set Values

To configure custom attributes to be captured on the value set values screen in the Manage Value Sets task, configure the Value Set Values descriptive flexfield. The object's code is FND_VS_VALUES_B.This flexfield expects the context code to correspond to the value set code. For each value set, you can define a context whose code is the value set code, and whose context-sensitive segments are shown for the values of that value set. By default, the context segment is hidden since it maps to the value set code and is not expected to be changed.

You can also define global segments that are shown for all value sets. However, this would be quite unusual since it would mean that you want to capture that attribute for all values for all value sets.

Deployment

When you deploy a flexfield, the value sets assigned to the segments of the flexfield provide users with the valid values for the attributes represented by the segments.

Related Topics

- Defining Value Sets: Critical Choices

Defaulting and Deriving Segment Values: Explained

To populate a flexfield segment with a default value when a row is created, specify a default type of constant or parameter and a default value.

To synchronize a segment's value with another field's value whenever it changes, specify the derivation value to be the flexfield parameter from which to derive the attribute's value. Whenever the parameter value changes, the attribute's value is

changed to match. If you derive an attribute from a parameter, consider making the attribute read-only, as values entered by users are lost whenever the parameter value changes.

When defaulting or deriving a default value from a parameter, only those attributes designated by development as parameters are available to be chosen.

Different combinations of making the segments read only or editable in combination with the default or derivation value or both, have different effects.

Initial run time behavior corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it cannot subsequently be changed through the user interface. If the default value isn't read only, users can modify it. However, if the segment value is a derived value, a user-modified segment value is overwritten when the derivation value changes.

Default Type	Default value specified?	Derivation value specified?	Initial run time behavior	Run time behavior after parameter changes
None	No	Yes	No initial segment value	The changed parameter derivation value updates segment value
Constant	Yes	No	Default segment value	N/A
Constant	Yes	Yes	Default segment value	The changed parameter derivation value updates segment value
Parameter	Yes	No	The default segment value is the parameter's default value	N/A
Parameter	Yes	Yes, and same as default value	The default segment value is the parameter's default and derivation value	The changed parameter derivation value updates segment value
Parameter	Yes	Yes, and different from default value	The default segment value is the parameter's default value	The changed parameter default value doesn't update segment value. Only the changed derivation value updates the segment value.

Related Topics

- How can I set a default value for a flexfield segment?

Flexfield Usages: Explained

The flexfield usage specifies the table with which the flexfield and its segments are associated.

A flexfield can have multiple usages. However, the first table registered for a flexfield indicates the master usage. Segments are based on the master usage. Other usages of the same table for the same flexfield use the same segment setup, though the column names may have a differentiating prefix.

On the Manage Descriptive Flexfields and Manage Extensible Flexfields pages, click the **Show Entity Usages** icon for a specific flexfield to view its entity usage. On the Manage Value Sets page, you can view the flexfield usages for a selected value set.

Extensible Flexfields

For extensible flexfield contexts, you can configure a different usage. The usage of an extensible flexfield context determines the scenarios or user interfaces in which the segments of a context appear to end users. For example, the Supplier page displays an extensible flexfield's supplier usage and the Buyer page for the same flexfield displays the buyer usage. Then, a context that is associated only with the supplier usage appears only on the Supplier page and not on the Buyer page.

Value Sets

The usage of value sets specifies the flexfields having segments where the identified value set is assigned.

FAQs for Manage Applications Core Descriptive Flexfields: Manage Flexfields

How can I access predefined flexfields?

Search for predefined flexfields using the Define Flexfields task list:

1. In the Setup and Maintenance work area, search for the **Define Flexfields** task list and expand it to view the tasks.
2. Open the task that corresponds to the flexfields you are searching for.
3. Enter any of the search parameters and click **Search**.

   Tip: If you don't know the flexfield name or the code, use the **Module** field to filter search results.

4. Click a flexfield to view its details.

Why did my flexfield changes not appear in the run time UI?

The ADF business components or artifacts of a flexfield, which are generated into an Oracle Metadata Services (MDS) Repository when the flexfield is deployed, are cached within a user session. You must sign out and sign back in again to view flexfield definition changes reflected in the run time application user interface page.

Why did my page not display any flexfield?

For a flexfield to be available in the page, it must be registered by developers and also deployed. The segments appear on the page only after you have successfully deployed the flexfield.

A flexfield's deployment status indicates whether the flexfield segments are available to end users. The flexfield segments seen by end users in the run time correspond to the flexfield definition that was last deployed successfully.

For information about registering flexfields, see the Oracle Fusion Applications Developer's Guide. Some business objects haven't been designed to support flexfields. For information about how to enable business objects with flexfield capability, see Getting Started with Flexfields in the Oracle Fusion Applications Developer's Guide.

Note: Oracle Sales Cloud doesn't support flexfields.

To add custom attributes to these applications, you may use Application Composer. For more information, see the product-specific documentation.

How can I enable flexfield segments for Oracle Social Network Cloud Service?

When you manage Oracle Social Network Objects during setup and maintenance, search for the business object that includes descriptive flexfields. Select the attributes that are defined as flexfield segments and enable them.

Manage Applications Core Descriptive Flexfields: Deploy Flexfields

Flexfield Deployment: Explained

Deployment generates or refreshes the Application Development Framework (ADF) business component objects that render the flexfield in a user interface. The deployment process adds custom attributes to the Web Services Description Language (WSDL) schemas exposed by Oracle ADF services and used by SOA composites. Flexfields are deployed for the first time during the application provisioning process. After you configure or change a flexfield, you must deploy it to make the latest definition available to users.

If a descriptive flexfield is enabled for business intelligence, the deployment process redeploys the flexfield's business intelligence artifacts.

You can deploy a flexfield to a sandbox for testing or to the mainline metadata for use in a test or production run time environment. You can deploy extensible flexfields as a background process.

After deployment, the custom attributes are available for incorporating into the SOA infrastructure, such as business process and business rule integration. For example, you can now write business rules that depend on the custom attributes. You must sign out and sign back in to Oracle Applications Cloud to see the changes you deployed in the run time.

The following aspects are important in understanding flexfield deployment:

- Deployment Status
- Initial Deployment Status
- Metadata Validations
- Metadata Synchronization
- Deployment as a Background Process
- Export of Artifacts from Flexfield MDS

Deployment Status

Every flexfield has a deployment status.

A flexfield can have the following deployment statuses:

Deployment Status	Meaning
Edited	The flexfield metadata definition hasn't been deployed yet. Updates of the metadata definition aren't applied in the run time environment yet.
Patched	The flexfield metadata definition has been modified through a patch or a data migration action, but the flexfield hasn't yet been deployed. So, the updated definition isn't reflected in the run time environment.
Deployed to Sandbox	The current metadata for the flexfield is deployed in ADF artifacts and available as a flexfield-enabled sandbox. The status of the sandbox is managed by the Manage Sandboxes task available to the Administrator menu of the Setup and Maintenance work area.

Deployment Status	Meaning
Deployed	The current metadata for the flexfield is deployed in ADF artifacts and available to users. No changes have been made to the flexfield after being deployed to the mainline metadata.
Error	The deployment attempt in the mainline metadata failed.

Note: Whenever a value set definition changes, the deployment status of a flexfield that uses that value set changes to edited. If the change results from a patch, the deployment status of the flexfield changes to patched.

Initial Deployment Status of Flexfields

The Oracle Applications Cloud implementation loads flexfield metadata into the database. This initial load sets the flexfield status to Edited. During installation, the application provisioning process deploys the flexfields of the provisioned applications, setting their status to Deployed if no errors occur.

In a provisioned application, deployed flexfields are ready to use. In some cases, flexfield availability at run time requires setup, such as defining key flexfields.

Metadata Validation

Use the Validate Metadata command to view possible metadata errors before attempting to deploy the flexfield. Metadata validation is the initial phase of all flexfield deployment commands. By successfully validating metadata before running the deployment commands, you can avoid failures in the metadata validation phase of a deployment attempt. The deployment process ends if an error occurs during the metadata validation phase. Metadata validation results don't affect the deployment status of a flexfield.

Metadata Synchronization

When an extensible or descriptive flexfield is deployed, the deployment process regenerates the XML schema definition (XSD). As a result, the custom attributes are available to web services and the SOA infrastructure.

After deploying a flexfield configuration, you must synchronize the updated XML schema definition (XSD) files in the MDS repositories for each SOA application.

Note: To synchronize the updated XSD files in the MDS repositories in Oracle Cloud implementations, log a service request using My Oracle Support at http://support.com/

Deployment as a Background Process

You can deploy extensible flexfields offline as a background process and continue working in the session without having to wait for the deployment to complete. You can queue up several extensible flexfields and deploy as a background process. The flexfields are deployed, one at a time, in the order that you deploy them to the queue. You must deploy extensible flexfields with more than 30 categories as a background process.

You can remove an extensible flexfield from the deployment queue with the Cancel Background Deployment command. When an extensible flexfield is deployed in a background process, its offline status indicates that the flexfield is in a background deployment process. A flexfield's offline status is cleared and its deployment status updated when the background deployment process has completed.

Export of Artifacts from Flexfield MDS

You can export business components from MDS for descriptive, extensible, or key flexfields, mainly for use in troubleshooting issues with flexfields. Use **Download Flexfield Archive** on the Manage Flexfields page to export MDS artifacts of the

selected flexfield, and import them to an archive on your local computer. You can use these archived business components of flexfields for troubleshooting purposes.

Alternatively, export the deployed artifacts using **`exportMetadata WLST`**.

Flexfield Deployment Status: How It Is Calculated

Flexfield deployment status indicates how the flexfield metadata definition in the Oracle Fusion Applications database relates to the Application Development Framework (ADF) business components generated into an Oracle Metadata Services (MDS) Repository.

The following aspects are important in understanding how flexfield deployment status is calculated:

- Settings that affect flexfield deployment status
- How deployment status is calculated

Settings That Affect Flexfield Deployment Status

If you have made a change to a flexfield and expect a changed deployment status, be sure you have saved your changes. No settings affect flexfield deployment status.

How Deployment Status Is Calculated

If the flexfield definition has been edited through the Define Flexfields activity task flows, the status is Edited. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. Any change, including if a value set used in a flexfield changes, changes the deployment status to Edited. If a flexfield has never been deployed, its status is Edited.

> **Note:** When an application is provisioned, the provisioning framework attempts to deploy all flexfields in that application.

If you deploy the flexfield to a sandbox successfully, the status is Deployed to Sandbox. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a sandbox MDS Repository. Whether the sandbox is active or not doesn't affect the deployment status. If the flexfield was deployed to a sandbox and hasn't been edited or redeployed to the mainline metadata since then, the status remains Deployed to Sandbox independent of whether the sandbox is active, or who is viewing the status.

If you deploy the flexfield successfully to the mainline metadata, the status is Deployed. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a mainline MDS Repository. Change notifications are sent when a flexfield is deployed successfully to the mainline metadata.

If either type of deployment fails so that the current flexfield definition isn't deployed, the status is Error. The deployment error message gives details about the error. The latest flexfield metadata definition in the Oracle Fusion application likely diverges from the latest successfully deployed flexfield definition.

If the flexfield definition has been modified by a patch, the status is Patched. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. If the flexfield definition was Deployed before the patch and then a patch was applied, the status changes to Patched. If the flexfield definition was Edited before the patch and then a patch was applied, the status will remain at Edited to reflect that there are still changes (outside of the patch) that aren't yet in effect.

When a deployment attempt fails, you can access the Deployment Error Message for details.

Related Topics

- Managing Extensible Flexfields: Points to Consider

Deploying a Flexfield-Enabled Sandbox: How It Works With Mainline Metadata

The flexfield definition in a sandbox corresponds to the flexfield metadata definition in the Oracle Fusion Applications database at the time the flexfield was deployed to the sandbox. When the flexfield is ready for end users, the flexfield must be deployed to the mainline metadata.

A flexfield-enabled sandbox uses the following components.

- Flexfield metadata in the Oracle Applications Cloud database
- Flexfield business components in a sandbox Oracle Metadata Services (MDS) repository
- User interface customizations for the flexfield in the mainline MDS repository

The figure shows the two types of deployment available in the Manage Flexfield tasks of the Define Flexfields activity. Deploying a flexfield to a sandbox creates a sandbox MDS Repository for the sole purpose of testing flexfield behavior. The sandbox is only accessible to the administrator who activates and accesses it, not to users generally. Deploying a flexfield to the mainline metadata applies the flexfield definition to the mainline MDS Repository where it is available to end users. After

deploying the flexfield to the mainline metadata, customize the page where the flexfield segments appear. Customization of the page in the sandbox MDS Repository cannot be published to the mainline MDS Repository.

Sandbox Metadata Services Repository Data

Deploying the flexfield to a sandbox generates the Application Development Framework (ADF) business components of a flexfield in a sandbox MDS Repository for testing in isolation.

Caution: Don't customize flexfield segment display properties using Page Composer in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline metadata.

Mainline Metadata Services Repository Data

The Oracle Fusion Applications database stores the single source of truth about a flexfield. When the flexfield is deployed, the ADF business component objects that implement the flexfield in the run time user interface are generated in the mainline MDS Repository from this source.

Related Topics

- Managing Customizations Using Sandboxes: Explained

Deploying a Flexfield to a Sandbox: Points to Consider

Deploying a flexfield to a sandbox creates a flexfield-enabled sandbox. Each flexfield-enabled sandbox contains only one flexfield.

You can test the run time behavior of a flexfield in the flexfield-enabled sandbox. If changes are needed, you return to the Define Flexfield tasks to change the flexfield definition.

When you deploy a flexfield to sandbox, the process reads the metadata about the segments from the database, generates flexfield Application Development Framework (ADF) business component artifacts based on that definition, and stores in the sandbox only the generated artifacts derived from the definition.

When you deploy a flexfield sandbox, the process generates the name of the flexfield sandbox, and that flexfield sandbox is set as your current active sandbox. When you next sign in to the application, you can see the updated flexfield configurations. The Oracle Fusion Applications global area displays your current session sandbox.

> **Note:** Unlike a standalone sandbox created using the Manage Sandboxes tool, the sandbox deployed for a flexfield contains only the single flexfield. You can manage flexfield sandboxes, such as setting an existing flexfield sandbox as active or deleting it, using the Manage Sandboxes tool.

When you deploy a flexfield to the mainline metadata after having deployed it to the sandbox, the sandbox-enabled flexfield is automatically deleted.

Sandbox MDS Repository Data

The sandbox data lets you test the flexfield in isolation without first deploying it in the mainline metadata where it could be accessed by users.

> **Caution:** Don't customize flexfield segment display properties using Page Composer in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline metadata.

Managing a Flexfield-Enabled Sandbox

When you deploy a flexfield as a sandbox, that flexfield-enabled sandbox automatically gets activated in your user session. When you sign back in to see the changes, the sandbox is active in your session.

You can only deploy a flexfield to a sandbox using the Define Flexfields task flow pages.

You also can use the Manage Sandboxes feature in the Administration menu of the Setup and Maintenance work area to activate and access a flexfield-enabled sandbox.

> **Note:** Whether you use the Define Flexfields or Manage Sandboxes task flows to access a flexfield-enabled sandbox, you must sign out and sign back in before you can see the changes you deployed in the run time.

You cannot publish the flexfield from the sandbox to the mainline metadata. You must use the Define Flexfields task flow pages to deploy the flexfield for access by users of the mainline metadata because the flexfield configuration in the mainline metadata is the single source of truth.

Related Topics

- Managing Customizations Using Sandboxes: Explained

Deploying Flexfields Using the Command Line: Explained

You can use the Manage Key Flexfields, Manage Descriptive Flexfields, and Manage Extensible Flexfields tasks to deploy flexfields. You can also use WebLogic Server Tool (WLST) commands for priming the Oracle Metadata Services (MDS) Repository with predefined flexfield artifacts and for deploying flexfields.

The table describes the available commands.

WebLogic Server Tool Command	Description
`deployFlexForApp`	Deploys all flexfields for the specified enterprise application. Only flexfields whose status is other than deployed are affected by this command, unless the option is enabled to force all flexfields to be deployed, regardless of deployment status. Initial application provisioning runs this command to prime the MDS Repository with flexfield artifacts.
`deployFlex`	Deploy a single flexfield regardless of deployment status
`deployPatchedFlex`	Deploys flexfield changes that have been delivered using a flexfield Seed Data Framework (SDF) patch. Deploys flexfields that have a Patched deployment status.
`deleteFlexPatchingLabels`	Displays MDS label of flexfield changes for viewing and deleting patching labels.
`validateFlexDeploymentStatus`	Displays list containing flexfields that aren't deployed or failed deployment.

Executing these commands outputs a report at the command line. The report provides the following information for every flexfield that is processed.

- Application identity (APPID)
- Flexfield code
- Deployment result, such as success or error

In case of errors, the report lists the usages for which errors occurred. If a run time exception occurs, the output displays the trace back information. For each WLST flexfield command, adding the **`reportFormat='xml'`** argument returns the report as an XML string.

Consider the following aspects of command-line deployment.

- Preparing to use the WLST flexfield commands
- Using the **`deployFlexForApp`** command
- Using the **`deployFlex`** command
- Using the **`deployPatchedFlex`** command

- Using the **deleteFlexPatchingLabels** command
- Using the **validateFlexDeploymentStatus** command
- Closing WLST and checking the results

Preparing To Use the WLST Flexfield Commands

You can only execute the WLST flexfield commands on a WebLogic Administration Server for a domain that has a running instance of Oracle Fusion Middleware Extensions for Oracle Application.

For more information about deploying the Oracle Fusion Middleware Extensions for Oracle Application to the server domains, see the Oracle Fusion Applications Developer's Guide.

Ensure that the AppMasterDB data source is registered as a JDBC data source with the WebLogic Administration Server and points to the same database as the ApplicationDB data source.

Start the WebLogic Server Tool (WLST) if not currently running.

UNIX:

```
sh $JDEV_HOME/oracle_common/common/bin/wlst.sh
```

Windows:

```
wlst.cmd
```

Connect to the server, replacing the user name and password arguments with your WebLogic Server user name and password.

```
connect('wls_username', 'wls_password', 'wls_uri')
```

The values must be wrapped in single-quotes. The **wls_uri** value is typically **T3://localhost:7101**.

For more information about the WLST scripting tool, see the Oracle Fusion Middleware Oracle WebLogic Scripting Tool.

Using the deployFlexForApp Command

The **deployFlexForApp** command translates the product application's predefined flexfield metadata into artifacts in the MDS Repository.

> **Note:** This command is run automatically when you provision applications. However, if you customize applications, you have to manually run it following the order of tasks as given here:
>
> 1. Configure your application to read the flexfield artifacts from the MDS Repository.
> 2. Run the **deployFlexForApp** command.
> 3. Sign in to the application.
>
> This sequence of steps is required even if there is no predefined flexfield metadata.

This command doesn't deploy flexfields that have a status of Deployed unless the force parameter is set to **'true'** (the default setting is **'false'**).

For more information about priming the MDS partition with configured flexfield artifacts, see the Oracle Fusion Applications Developer's Guide.

From the WLST tool, execute the following commands to deploy the artifacts to the MDS partition, replacing **product_application_shortname** with the application's short name wrapped in single-quotes.

```
deployFlexForApp('product_application_shortname'[, 'enterprise_id'] [,'force'])
```

In a multi-tenant environment, replace **enterprise_id** with the Enterprise ID to which the flexfield is mapped. Otherwise, replace with **'None'** or don't provide a second argument.

To deploy all flexfields regardless of their deployment status, set force to **'true'** (the default setting is **'false'**). To deploy all flexfields in a single-tenant environment, you either can set **enterprise_id** to **'None'**, or you can use the following signature:

```
deployFlexForApp(applicationShortName='product_application_shortname',force='true')
```

The application's short name is the same as the application's module name. For more information about working with application taxonomy, see the Oracle Fusion Applications Developer's Guide.

Using the deployFlex Command

From the WLST tool, execute the following command to deploy a flexfield, replacing **flex_code** with the code that identifies the flexfield, and replacing **flex_type** with the flexfield's type, either descriptive flexfield, key flexfield, or extensible flexfield. The values must be wrapped in single-quotes.

```
deployFlex('flex_code', 'flex_type')
```

Optionally, execute the following command if the flexfield is an extensible flexfield, and you want to deploy all the flexfield's configurations.

> **Note:** By default, extensible flexfields are partially deployed. That is, only the pages, contexts, or categories that had recent changes, are deployed.

```
deployFlex('flex_code', 'flex_type', ['force_Complete_EFF_Deployment'])
where, forceCompleteEFFDeployment=None
```

Using the deployPatchedFlex Command

Use the **deployPatchedFlex** command for situations where the patching framework doesn't initiate the command, such as when an application has been patched offline.

If the installation is multi-tenant enabled, the command deploys all patched flexfields for all enterprises. This command isn't intended to be initiated manually.

Check with your provisioning or patching team, or the task flows for managing flexfields, to verify that the flexfield has a Patched deployment status.

From the WLST tool, execute the following command to deploy the artifacts to the MDS partition.

```
deployPatchedFlex()
```

Execute the following command to deploy all flexfields that have either a READY status or an ERROR status.

```
deployPatchedFlex(mode='RETRY')
```

Using the deleteFlexPatchingLabels Command

Whenever you deploy flexfield changes to MDS using the **deployPatchedFlex()** WLST command, an MDS label is created in the format **FlexPatchingWatermarkdate+time**. Use the **deleteFlexPatchingLabels** command to inquire about and delete these labels.

From the WLST tool, execute the **deleteFlexPatchingLabels ()** command with no arguments to delete the flexfield patching labels.

To output a list of flexfield patching labels, execute the command with the **infoOnly** argument, as follows:

```
deleteFlexPatchingLabels(infoOnly='true')
```

Using the validateFlexDeploymentStatus Command

The **`validateFlexDeploymentStatus()`** WLST command checks the deployment status of all flexfields in an Oracle Fusion Applications deployment.

```
validateFlexDeploymentStatus()
```

Use this command to verify that all flexfields in the current instance of provisioned Java EE applications are deployed.

Closing WLST and Checking the Results

To close the tool, execute the command: **`disconnect()`**.

Optionally, sign in the application, open user interface pages that contain flexfields, and confirm the presence of flexfields for which configuration exists, such as value sets, segments, context, or structures.

Define Global Search

Setting Up the Global Search: Overview

You have many options for setting up the global search, from enabling or disabling it completely to controlling what appears in the autosuggest. For most of the steps, use setup tasks in the Setup and Maintenance work area.

Enabling Global Search

A predefined set of business objects, for example help files in Applications Help, are available for global search. These objects are grouped into categories. The search gives you results from indexed data, for example the help files with text that matches your search term.

Enabling global search includes setting up the predefined objects and categories, and starting a schedule to refresh the index so that users get the latest results.

1. Check with your help desk to make sure that objects, categories, and schedules are already set up.

   If you're not using an Oracle Cloud implementation, you need to do this setup yourself. For details about enabling search for predefined objects, categories, and indexes, see the Oracle Fusion Applications Administrator's Guide.
2. Set the Global Search Enabled (FUSION_APPS_SEARCH_ENABLED) profile option to **Yes** at the Site level.
   - Otherwise, the search field isn't available in the global area for any user.
   - After you set the profile option, users must sign out and sign back in to see the global search.

Note: Enabling global search is the only mandatory setup. You can skip the rest of the steps below, and just use the default configuration for the global search.

Defining Global Search

Use these tasks in the following tasks lists to control how the global search works:

- Define Global Search task list
  - **Manage Global Search Configurations:** Define configurations that capture a collection of settings, and determine which configurations are enabled or used as default. Each configuration applies to the global search on all or specific applications or pages.
  - **Manage Suggestion Groups:** Define suggestion groups, which represent categories of suggestions in the autosuggest.
- Manage Applications Core Common Reference Objects task list
  - **Manage Applications Core Alternate Words:** Define alternates for search terms that users enter, so that the search can also find matches based on the alternate terms.

Retaining Recent Items

You can set the Recent Items Retention (FND_PURGE_RECENT_ITEMS) profile option to determine how long to retain recent items for the global search autosuggest. A page that the user opened can appear in the user's autosuggest until the specified number of days passes. Aside from the autosuggest, this profile option also applies to the recent items tracked under **Favorites and Recent Items** in the global area.

Manage Global Search Configurations

Setting Global Search Configurations as Enabled or Default: Examples

Each global search configuration contains settings for the global search, and a configuration can apply to specific pages or applications. Use the Manage Global Search Configurations page to enable or disable configurations, and select the one to use as the default. The following scenarios explain which configurations actually apply to the global search, depending on the configurations that you enable or set as default.

Predefined Default

The predefined Default configuration is always enabled and set as a default. This configuration is the working default unless a custom global search configuration is also set as a default. In this scenario, you don't enable any other configuration, so this Default configuration applies to the global search on all pages, in all applications.

Custom Default

You create a custom global search configuration that applies to page A and application B. Later, you set your configuration as the default. Only this custom configuration and the predefined Default configuration are enabled. Both are set as default.

The result is that:

- Your custom configuration overrides the predefined Default one and becomes the working default.

- Even though you defined your custom configuration to apply to page A and application B, it now actually applies to all pages and all applications. This is because your configuration is the working default, and no other configuration is enabled.

Specific Pages or Applications

You're using either the predefined Default configuration or a custom configuration as the default. You also enable:

- **Configuration 1:** Applies to application A
- **Configuration 2:** Applies to application B and a few pages in application A

The result is that:

- Configuration 1 applies to all pages in application A, except the few pages that use configuration 2.
- Configuration 2 applies to all pages in application B, plus the few pages in application A.
- The default configuration applies to all other applications and pages.

Creating Global Search Configurations: Procedure

Predefined global search configurations control how the global search behaves and looks. You can't edit these configurations, but you can duplicate them and edit the copies, or create your own from scratch.

Creating a Configuration

Follow these steps:

1. Open the Setup and Maintenance work area, and go to the Manage Global Search Configurations task.
2. Click **Create**, or select a row and click **Duplicate**.

   Note: You can't delete a configuration after you create it, but you can disable it.

3. For the short name (identifier for your configuration), enter an alphanumeric code with uppercase letters and no spaces.
4. Enter a user-friendly name and description for the configuration.
5. Select the **Default** check box if you want to use your configuration as the default instead of the predefined Default configuration. If another custom configuration was already set as the default, then your configuration becomes the new custom default.
6. Select a product family if the configuration is for applications or pages within a specific family. Otherwise, select **Common**.
7. If you're creating a duplicate, click **Save and Close**. To go on to the next steps and define more settings, select your configuration and click **Edit**.
8. Enter a module within the product family you selected. If you selected the Common family, then select the **Oracle Middleware Extensions for Applications** module.
9. Use the tabs to define your configuration:
   - **Autosuggest:** Determine what's available to users in the global search autosuggest, as well as how the autosuggest looks and behaves.
   - **Search Field:** Control the search field in the global area and in the search results dialog box.
   - **Search Results:** Enable or disable saved and recent searches, select the search categories available to users, and define settings for filters.
   - **Pages:** Indicate the applications or pages that this global search configuration applies to.

10. Save your work.

Setting Up the Autosuggest for the Global Search: Procedure

Use global search configurations to determine what's available to users in the autosuggest. You select the suggestion groups to include in configurations. The configurations also determine how the autosuggest looks and behaves.

Prerequisite

Open the Autosuggest tab in the Create or Edit Global Search Configuration page.

Defining the Content

To select suggestion groups and determine how they're displayed in the autosuggest:

1. In the Suggestion Group section on the Autosuggest tab, move the groups you want to include into the **Selected Groups** pane.

   The **Enabled** column in the Available Groups pane indicates if the group is defined (on the Manage Suggestion Groups page) to be displayed by default or not in the autosuggest.
2. In the **Enabled** column in the Selected Groups pane, select one of the following values. The **Displayed by Default** column shows the resulting behavior in the autosuggest, based on what you select in the **Enabled** column.

   Note:

   - **Inherit:** In the autosuggest, the group is displayed or hidden by default depending on what's defined for the group.
   - **Yes:** The group is displayed by default, no matter what's defined for the group.
   - **No:** The group is hidden by default, no matter what's defined for the group.
3. Order the selected groups as you want them to appear in the autosuggest.
4. Above the Suggestion Groups section, select the **Enable personalization of search groups** check box if you want to allow users to override your configuration. Users can hide, show, and reorder suggestion groups for their autosuggest.

Tip: Click the **Manage Suggestion Groups** button at any time to edit or create suggestion groups. When you return to the Autosuggest tab, click **Refresh** to reflect the changes you made to suggestion groups.

Defining the Appearance

Optionally define settings in the Appearance section on the Autosuggest tab:

- **Show Suggestion Group Headings:** Select this option to display suggestion group headings (text and icon) in the autosuggest. Even if you do so, if a group is defined on the Manage Suggestion Groups page to not show headings, then its heading won't be displayed.
- **Show Icons:** Select this option to display icons next to suggestions in the autosuggest.
- **No Suggestions Message:** Enter the message that appears when no suggestions match the user's search term. If you leave this field blank, then no autosuggest or anything at all appears when there are no matches.

Defining the Behavior

Optionally define settings in the Behavior section on the Autosuggest tab:

- **Show Top Suggestions:** Enable this option to display suggestions in the autosuggest as soon as the user clicks in the search field, even without entering a search term. For example, the last few pages the user opened would appear as suggestions under the Recent Items group.
- **Minimum Characters for Autosuggest:** Enter the number of characters that users must enter in the search field before matching suggestions appear in the autosuggest.
- **Maximum Number of Suggestions:** Enter the maximum number of suggestions to be displayed across all suggestion groups. This total is distributed as equally as possible among the groups.

Disabling Saved Searches and Recent Searches for the Global Search: Points to Consider

Global search configurations determine if saved searches and recent searches are enabled in the global search. Consider the following points when you use disable either. In the Create or Edit Global Search Configuration page, open the Search Results tab and use the Saved and Recent Searches section.

Disabling Saved Searches

If you disable saved searches:

- You disable the Save button in the search results dialog box, so users can't create or edit saved searches for global search.
- You're not disabling the Saved Searches suggestion group. Users can still see any applicable saved searches in the global search autosuggest.

Disabling Recent Searches

If you disable recent searches:

- The application isn't saving recent searches.
- You're not disabling the Recent Searches suggestion group. Users can still see in the autosuggest any applicable searches that they recently ran before you disabled recent searches.

Setting Up Filters for the Global Search: Procedure

To determine how users can filter their search results, define the appropriate settings when you create or edit global search configurations. You can set up search categories so that users can limit the scope of their search to begin with, or refine their search results.

Prerequisite

Open the Search Results tab on the Create or Edit Global Search Configuration page.

Setting Up Categories to Narrow Search Scope

To let users select the categories to search on before running the search:

1. In the Filters section, enable personalization of search categories.

2. In the Search Categories section, select the categories that users can search on. If you don't select any, then every category is available to users.

Setting Up Categories as Search Result Filters

To let users filter search results based on category:

1. In the Filters section, select the check boxes to show subcategories, facets, or both. Categories are always displayed. Subcategories are an additional level of filters below categories, and facets are a level below categories.
2. Select a filter display style so that the list of all available category names are displayed:
   - **Inline:** In the Filters pane in the search results
   - **LOV:** In a Categories dialog box that users can open from the Filters pane
3. In the Search Categories section, select the categories to use as filters. This is the same set of categories to be used for personalization. If you don't select any, then every category is available to users.

Setting Other Options for Filters

You can also use the Filters section to:

- **Show Hit Counts:** Show the number of search results that match each filter value
- **Enable Clear All Filters:** Allow users to clear all filters with one click of a button

In the Last Updated Date Filters section, select the criteria to use as filters, based on the last update date. If you don't select any, then every date filter is available to users.

Specifying the Pages or Applications That a Global Search Configuration Applies To: Procedure

As part of defining your global search configuration, you can specify the pages or applications (or both) that your configuration applies to. If you want your configuration to apply to all pages in all applications, then skip these steps.

Prerequisites

If you want the global search configuration to apply to specific applications, you need to find the application short name.

1. Open the Setup and Maintenance work area and go to the Manage Taxonomy Hierarchy task.
2. Expand the Oracle Fusion node.
3. Select the row (with the Application module type) for your application, and click **Edit Module**.
4. In the Application Details section, see the **Application Short Name** column and note down the value to use as the application short name.

Adding Pages or Applications

Follow these steps:

1. On the Create or Edit Global Search Configurations page, open the Pages tab.
2. Click the **Create** icon.
3. In the **View Type** column, indicate if the configuration applies to a specific page or application.
4. Enter a view ID to identify the page or application:

Tip: You can use **%** as a wildcard for the page or application value, such as **Example%** for all pages that start with **Example**.

- **Page:** Enter the last part of the URL you get when you open that page. For example, enter `ExamplePage` from the URL `http://exampleServer/homePage/faces/ExamplePage`.
- **Application:** Enter the application short name with a wildcard at the end, for example `HomePageApp%`.

5. Add more pages or applications as needed.

Manage Suggestion Groups

Suggestion Groups for the Global Search: Explained

A suggestion group is a category of suggestions that users see in the autosuggest for the global search. For example, if the user enters Report in the search field, then the Navigator suggestion group in the autosuggest shows any Navigator menu names with Report.

Managing Suggestion Groups

Each suggestion group can have a heading, for example Recent Items, as well as an icon that appears before the heading text. The icon helps users identify what the group is all about.

You can manage suggestion groups to:

- Show or hide the group by default in the autosuggest
- Enter the heading text
- Define if the heading text appears in the autosuggest or not
- Identify the image file to use as the icon

Tip: You can copy predefined suggestion groups and edit them to create customized versions.

To manage suggestion groups, open the Setup and Maintenance work area and use either the:

- Manage Suggestion Groups task
- Autosuggest tab when you create or edit global search configurations using the Manage Global Search Configurations task

Using in Global Search Configurations

Just because a suggestion group is defined to be displayed by default doesn't necessarily mean that it in fact appears in the autosuggest. Global search configurations determine which groups are included for the autosuggest, whether icons appear for the headings, and so on.

You can use a suggestion group in many or all global search configurations. And ultimately, if personalizing suggestion groups is enabled, then users can show, hide, and reorder the suggestion groups included in the global search configuration.

Changing the Heading Text and Icon for Suggestion Groups: Worked Example

This example shows how to change the icon and text for a suggestion group heading in the global search autosuggest. In this example, you start out with the predefined Default global search configuration enabled, and no custom configurations.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which predefined suggestion group do you want to change?	Recent Items
What do you want the new heading text to be?	Recently Visited Pages
Which image do you want to use as the icon?	A .png file (16 by 16 pixels) that's used on your company Web site
Do you want the new suggestion group to appear in the autosuggest by default?	Yes
Which pages should the changes apply to?	All pages

To use a new icon and heading text for the suggestion group:

- Make a copy of the predefined Recent Items suggestion group.
- Update global search configurations to use the custom suggestion group.

Duplicating the Predefined Suggestion Group

1. Open the Setup and Maintenance work area, and go to the Manage Suggestion Groups task.
2. Select the Recent Items group and click **Duplicate**.
3. In the new row, enter **RECENTCUSTOM** as the short name.
4. Change the display name to **Custom Recent Items**.
5. Change the description to **Custom version of Recent Items**.
6. With your new row still selected, click **Edit**.
7. In the Heading section, enter **Recently Visited Pages** in the **Text** field.
8. In the **Icon** field, enter the full URL to your .png file.
9. Click **Save and Close**.

Updating Global Search Configurations

1. In the Setup and Maintenance work area, go to the Manage Global Search Configurations task.
2. Select the Default configuration and click **Duplicate**.
3. Fill out the row for your new configuration, selecting the **Default** check box.
4. With the row still selected, click the **Edit** icon.
5. In the Autosuggest tab, click the **Refresh** button in the Suggestion Group section if you don't see your custom suggestion group.
6. Move the Custom Recent Items group into the **Selected Groups** list, and move the Recent Items group out.
7. In the **Enabled** column for the Custom Recent Items Group, select **Yes**.
8. In the Appearance section, make sure that headings are set to be displayed.

9. Click **Save and Close**.

Creating Suggestion Groups for the Global Search: Procedure

For the autosuggest in the global search, you can create new suggestion groups that determine suggestions in a way that's different from the predefined groups. Creating such suggestion groups involves developer tasks and is not applicable to Oracle Cloud implementations. After the code for the group is ready, you define the new suggestion group in the Create Suggestion Group page.

Note: You can't delete a suggestion group after you create it.

Prerequisites

Before you define the new suggestion group:

- Your developer writes code for the new suggestion group and provides you values for some of the suggestion group settings. For more information on implementing autosuggest, see the Oracle Fusion Applications Developer's Guide.
- If you want to display an icon for the group in the autosuggest, make sure that the graphics file:
  - Can be accessed using a URL.
  - Is 16 by 16 pixels or smaller.

Creating Suggestion Groups

Follow these steps:

1. Open the Setup and Maintenance work area and open the Manage Suggestion Groups task.
2. Click **Create**.
3. For the short name (identifier for your group), enter a unique alphanumeric code with uppercase letters and no spaces.
4. Enter a display name for the group, which can be different from the heading that appears in autosuggest.
5. Enter a description.
6. Determine if the suggestion group should be displayed by default in the autosuggest.
7. Select a product family if the group is for business objects from a specific family. Otherwise, use **Common**.
8. Select a module within the product family. If the product family is Common, then use the Oracle Middleware Extensions for Applications module.
9. In the **Data Source** field, enter the value your developer provides to determine the records to display in this suggestion group.
10. In the **Context Code** and **Object Type** fields, enter the value your developer provides, if any.
11. In the Heading section, determine if the heading (text and icon) is visible in the autosuggest.
12. Enter the exact text to appear as the heading of this group in the autosuggest.
13. To display an icon, enter in the **Icon** field the full URL to the image file, or a relative URL that your developer provides if the file is stored with other application artifacts.
14. Save your changes.

Note: Global search configurations:

- Determine which suggestion groups are actually available for the global search.
- Determine whether each included group is visible by default or not in the autosuggest.
- Can hide suggestion group headings in the autosuggest, even if the group is defined to show headings.

Managing Alternate Words for Global Search: Points to Consider

Use the Manage Applications Core Alternate Words task in the Setup and Maintenance work area to maintain a list of search terms that users might use for the global search. For each user keyword, define a possible alternate to also search on. Consider various reasons for defining these word pairs, and also decide whether to automatically search on both terms or not.

Reasons for Word Pairs

This table provides some reasons and examples for managing alternate words.

Purpose	What You Enter	User Input Keyword Example	Alternate Keyword Example
Correct user typos	A possible typo as the user input keyword, and the correctly spelled term as the alternate keyword	Oracel	Oracle
Account for abbreviations and acronyms	An abbreviation or acronym and what it stands for	BI	business intelligence
Account for common variations in spelling	Two different ways to spell the same term	email	e-mail
Enable matches on synonyms	A pair of terms that are functionally similar	hyperlink	link
Help new users who are not familiar with what things are called in the application	The term that your users might search on as the user input keyword, and the equivalent in the application as the alternate keyword	concurrent program	scheduled process

Note: You don't have to account for plurals or case sensitivity. For example, if you have **email** as a user input word, you don't have to also add **Email** or **emails** as an input word.

Automatically Search Both Terms

For each pair of terms, use the Automatically Search Both check box to determine what happens when the user enters the input word and starts the search:

- **Yes:** The search runs and displays results based on both terms.

  Before you select this check box, carefully consider possible impact. For example, would users get a lot of unnecessary search results, making it harder to find what they want?

- **No:** The user sees a message and can decide to continue searching on just the input term, or to search on just the alternate term instead.

49 Define WebLogic Communication Services Configuration

Oracle Sales Cloud CTI: Highlights

Oracle Sales Cloud Computer Telephony Integration (CTI) integrates with your telephony environment and must be manually enabled in your deployment. This topic highlights what is required to set up the CTI feature and to implement logging of the calls made using the CTI feature.

CTI is a feature of the customer contact process. You initiate phone communication to customers and employees with a click of your mouse, leveraging your customer contact information and the application context. The CTI feature uses Oracle WebLogic Communication Services to enable communications. Applications that provide the CTI functionality do so primarily through contextual actions.

Additionally, CTI utilizes Oracle Sales Cloud tasks as an optional transaction logging feature that will track information about the call such as the customer, call participants, a time stamp noting the start time of the call, the direction of the communication, in or outbound, and the resolution code.

Terms used in setting up these communications include:

- PSTN: Public switched telephone network is the network of the world's public circuit-switched telephone networks.
- SIP: Session initiation protocol, an open signaling protocol standard that is used to set up phone calls
- TPCC: Third Party Call Control enables an application to control the telephony network to set up calls automatically.
- Oracle WebLogic Communication Services. Offers the TPCC service to Oracle applications and sets up the calls using SIP integration with the telephony network.

The setup task list Define WebLogic Communication Services Configuration includes four tasks required for the correct configuration and implementation of CTI. One optional task, separate from the setup task list, is required for implementing task logging.

You can find information about implementing CTI in the Oracle Sales Cloud Administrator's Guide. Detailed information about configuring and maintaining WebLogic Communication Services is found in the Oracle WebLogic Communication Services Administrator's Guide

Configure and Deploy WebLogic Server

- Deploy WebLogic Communication Services: After the Oracle WebLogic communication server is deployed, this manual task activates the server.

  See: Oracle WebLogic Communication Services Administrator's Guide

Integrate Communications Services

- Integrate WebLogic Communication Services with Telephony Network: This manual task integrates communications within the telephony environment. Oracle WebLogic Communication Services must be configured to interface with the specific characteristics of the telephony network.

  See: Managing Oracle WebLogic Communication Services for CTI Functionality

Specify the Domain and Address

- Register a URL for the telephony gateway or soft switch for SIP domain: This task defines the Server protocol, defaulted to http, the external server host address, and external server port address. The Associated Modules section is not required for setup. You can also perform this as a manual task using Topology Manager to configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by CTI to correctly form the SIP addresses required by WebLogic Communication Services. See the link to Configuring PSTN Gateway Address Using Topology Manager: Worked Example.

Enable Click-to-Dial

- After configuring the server and defining the SIP domain, perform the Enable Click-to-Dial task. This task sets the value of the profile option Enable Click-to-Dial to Yes.

Call Logging Using Tasks

- To initiate the task based logging for CTI, set the profile option Call Interaction Logging Enabled to Yes'

Configuring PSTN Gateway Address Using Topology Manager: Worked Example

This example demonstrates how, during the implementation of the **Register URL for the telephony gateway or soft switch for SIP domain** task, you must manually configure the PSTN gateway address by registering HzCTDPstnGatewayApp to a given environment using Oracle Fusion Topology Registration

These steps configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click-to-Dial to correctly form the SIP addresses required by WebLogic Communication Services. For example: `SIP:+1650-555-1212@pstn_gateway.oracle.com;user=phone` where `pstn_gateway.oracle.com` is the SIP domain. The SIP domain can also be expressed in the format 10.1.1.1 (IP address).

Configuring PSTN Using the Topology Manager

To configure PSTN:

1. Sign in to Oracle Sales Cloud as a user that has **application implementation consultant** and **WebLogic Services administration** roles.
2. In Setup and Maintenance, click Register Enterprise Applications from the regional area under **Topology Registration.**
3. On the Register Enterprise Applications page, click the plus icon to add an enterprise application. An Add Enterprise Application dialog box appears.
4. Enter the new application information: Click **Search** in the Enterprise Application list field. Enter **HzCTDPstnGatewayApp** in the name field and click **Search**.
5. Click **OK**.
6. Enter the other fields in the Add Enterprise Application dialog box.

Field	Value
Name	HzCTDPstnGatewayApp
Server Protocol	SIP This field is ignored by Click-to-Dial. Oracle WebLogic Communication Service (OWLCS) always uses the SIP protocol.
External Server Host	10.143.167.91 (Used as an example) A host name can be used instead of an IP address.
External Server Port	0 (Used as an example) This field is ignored by Click-to-Dial.

7. Click **Save and Close**.

50 Define Custom Enterprise Scheduler Jobs

How can I see which applications a Manage Custom Enterprise Scheduler Jobs task includes?

In the Setup and Maintenance work area, see the task's description in the help window for the task, if any. To open the help window, click the help icon next to the task name, on pages such as the Manage Task Lists and Tasks page.

Tip:

- Click **Show Help** in the global area if you don't see help icons at all on the page.
- Make sure to show the Help column in the table.

You can also:

1. Open the work area landing page, the Offerings page.
2. Select an offering that contains the specific Manage Custom Enterprise Scheduler Jobs task.
3. Open the Setup Task Lists and Tasks file for the offering, in PDF, HTML, or Excel.

Managing Job Definitions: Highlights

Users run scheduled processes based on Oracle Enterprise Scheduler jobs to process data and, in some cases, to provide report output. A job definition contains the metadata that determines what the job does and what options are available to users. You can create and edit job definitions in the Setup and Maintenance work area, using the Manage Custom Enterprise Scheduler Jobs task for your application.

Viewing Job Definitions

- Use the Manage Job Definitions tab to access predefined and custom job definitions.
- The Name column shows an asterisk for predefined job definitions.

Creating Job Definitions

- You or a technical administrator can create jobs based on Oracle Business Intelligence Publisher reports, Java, PL/SQL, or any other supported technology.
- Every predefined or custom job must have a job definition.
- For Oracle Cloud implementations, you can create custom job definitions only for custom jobs based on reports.
- The Enable submission from Enterprise Manager check box is not applicable to Oracle Cloud implementations.
  - If you don't select this check box, then the job can't be run from Enterprise Manager.
  - If you select this check box, then you can define parameters for your job definition only in Enterprise Manager. Save the rest of your work on the job definition, and then go to Enterprise Manager if you need to define parameters.

Editing Job Definitions

- You can edit all aspects of custom job definitions.
- For predefined job definitions, you can:
  - Determine if user properties are read-only or not.
  - Edit what are described as job properties in the Oracle Fusion Applications Extensibility Guide for Developers.

    See: Customizing Existing Oracle Enterprise Scheduler Job Properties

Managing List of Values Sources: Highlights

A list of values source for Oracle Enterprise Scheduler job definitions determines where a list of values comes from and what the specific values are. Use these lists for parameters and application defined properties, for example a list of countries that users can choose from for a Country parameter.

Note: Since you can't edit parameters for predefined job definitions, list of values sources are only for parameters in custom job definitions.

Accessing List of Values Sources

- Access list of values sources in the Setup and Maintenance work area, using the Manage Custom Enterprise Scheduler Jobs task for your application.
- Open the Manage List of Values Sources tab.

Creating and Editing List of Values Sources

- Search for list of values sources to edit or delete, or to make sure a particular source doesn't already exist before you create it.
- Create list of values sources to register them for use in job definitions.

Managing Job Sets: Highlights

A job set identifies the Oracle Enterprise Scheduler jobs to include in a single process set that users can submit instead of running the jobs separately. The job set definition also determines if the jobs run in serial or parallel, or based on other predetermined logic.

Job Set Content

- A job set can contain any number of individual jobs as well as other job sets.
- There can also be multiple levels of nested job sets within a single job set. For example, a job set can include three jobs and two job sets, one of which contains another job set.

Creating and Editing Job Sets

- Access job set definitions in the Setup and Maintenance work area, using the Manage Custom Enterprise Scheduler Jobs task for your application.
- Open the Manage Job Sets tab.

51 Other Common Setup and Maintenance Tasks

Home Page Setup

Defining Settings for Home and Navigation: Explained

Click **Set System Options** on the Structure page to define settings for the home page and springboard. To open the Structure page, from the Navigator menu, select **Tools - Structure**.

Note: You must be in an active sandbox to define these settings.

Defining Settings

You can define the following settings:

- **Home Panel**: Specify the content of the side panel that appears to the left of the springboard on the home page. Select to display either social networking content or announcements in the panel. By default, social networking content is displayed in the home panel. Also, this panel isn't visible to partners or other external users who sign in to your application, by default. To provide access to such users, contact your security administrator.
- **Enable Infolets**: Select the infolet pages that you want to include on the home page. Based on your selection, these infolet pages will appear as a row of dots on the home page. Users can click a dot to navigate to each included infolet page. If you don't select any infolet page in the settings, no such dots will appear on the home page.

You can use profile options to define settings for the springboard strip that you can find above all simplified pages:

- To enable users to use the springboard strip, set the Springboard Strip Enabled profile option (FND_USE_FILMSTRIP) to Yes.
- If the FND_USE_FILMSTRIP profile option is set to Yes, then you can display the springboard strip as expanded by default. To do so, set the Springboard Strip Expanded profile option (FND_EXPAND_FILMSTRIP) to Yes. A user can still collapse or expand the strip on any page, and once done, this profile option is set by default for subsequent sessions of that user.

Related Topics

- Setting Profile Option Values: Procedure

FAQs for Home Page Setup

How can I post announcements on the home page?

Use the Announcements page to create, edit, and delete announcements. From the Navigator menu, select **Tools - Announcements**.

- Only the announcement's content (not subject) appears on the home page.

- If social networking features appear instead of announcements, then on the Set System Options page, change the home panel settings to display announcements. To open this page from the Navigator menu, select **Tools - Structure**, and then click **Set System Options**.
- What you do on the Announcements page applies immediately to all users, even if you saved your changes while a sandbox is active and not yet published.

Related Topics

- Setting Up Sandboxes: Procedure

How can I enable infolets?

Follow these steps:

1. Select **Tools - Structure** from the Navigator menu.
2. Click **Edit**.
3. On the Sandbox Required dialog box, click **Activate Sandbox**.
4. Select a sandbox and set it as active.
5. On the Structure page, click **Set System Options**.
6. Select **Enable Infolets**.
7. Click **Save and Close**.

Note: To make the settings changes available to users, publish the sandbox.

Contextual Addresses

Setting Up the Mapping Service for Contextual Addresses: Points to Consider

A contextual address is marked with an orange triangle that users can click to display the address on a map. The Mapping Service for Contextual Addresses profile option determines the mapping service to use to display the map. Use the Manage Administrator Profile Values or Manage Application Toolkit Administrator Profile Values task in the Setup and Maintenance work area to set the profile option value.

Profile Option Default

By default, the Mapping Service for Contextual Addresses profile option has no value.

Caution: Until you enter a valid value for this profile option, users get an error when they try to open a map for any contextual address.

Profile Option Value

After you find and select the Mapping Service for Contextual Addresses profile option, enter a mapping service URL in the Profile Value column, for example:

- `http://maps.google.com/maps?output=embed&q=`
- `http://maps.yahoo.com/maps_result.php?q1=`

- `http://maps.live.com/default.aspx?where1=`
- `http://bing.com/maps/?v=2&encType=1&where1=`

You can include parameters in the URL. For example, to avoid a locator box in Google Maps, add `&iwloc=&` to the URL. So, you would enter `http://maps.google.com/maps?iwloc=&&output=embed&q=` as the profile value.

Related Topics

- Setting Profile Option Values: Procedure

Privacy Statement

How can I enable the privacy statement?

In the Setup and Maintenance work area, open the Manage Applications Core Administrator Profile Values task and search for the **Privacy Statement URL** profile option. In the profile values section, update the **Profile Value** text box with the full URL of the web page containing the privacy content.

In the global area, click your user name and from the Settings and Actions menu, select **About This Page.**. Click **Privacy Statement** to view the linked web page.

Setting Up for General Troubleshooting: Points to Consider

To help the help desk troubleshoot issues that users encounter in the application, users can record the issue while they reproduce it. Some advanced users might also need detailed information in the About This Page dialog box. Setting up for troubleshooting involves making sure that users have the right access, and determining how many users can record at the same time.

Access

Check with your security administrator that the appropriate users are assigned roles that inherit the following privileges:

- **Record and View Issue (FND_RECORD_AND_VIEW_ISSUE_PRIV):** To create a basic recording
- **Set Issue Recording Advanced Options (FND_SET_ISSUE_RECORDING_ADVANCED_OPTIONS_PRIV):** To set advanced options before starting the recording
- **View Version Information (FND_VIEW_VERSION_INFORMATION_PRIV):** To see the versions that technical components of the application are on

Number of Users

Recordings are stored on servers, and by default, up to five users can record at the same time on each server. For performance reasons, you can set the Maximum Number of Users Allowed to Record Issues (ORA_FND_RECORD_ISSUE_MAX_USERS) profile option to a number lower than five.

Related Topics

- Recording Issues to Troubleshoot: Procedure

- How can I view the version information of an application?
- Setting Profile Option Values: Procedure

52 External Integration

Web Services

Web Services: Overview

Use web services to integrate web-based applications into your Oracle Applications Cloud. Web services expose business objects and processes to other applications through the use of open standards-based technologies.

The web services support development environments and clients that comply with the following open standards:

- Extensible Markup Language (XML)
- Simple Object Access Protocol (SOAP)
- Business Process Execution Language (BPEL)
- Web Services Description Language (WSDL)
- XML schema definitions (XSD)

Oracle Applications Cloud includes two types of web services:

- Application Development Framework (ADF) services
- Composite services

The following table describes the two types.

Web Service Type	Description
ADF services	ADF services usually represent business objects, such as employees or purchase orders. ADF services typically expose standard operations, such as create, update, and delete. However, for locally-persisted objects, ADF services are not limited to these operations. Examples of ADF services include: • **`Worker.changeHireDate`** - a service that updates the hire date of the worker business object. • **`ProjectTask.createTask`** - a service that adds a task to the project task business object.
Composite services	Composite services usually represent end-to-end business process flows that act on business events produced by the ADF services. Composite services orchestrate multiple object-based services, rules services, and human workflows. Examples of composite services include: • **`ProjectStatusChangeApproval.process`** - a service that accepts the change in project status. • ScheduleOrchestrationOrderFulfillmentLineService.scheduleOrders - a service that schedules resources used to fulfill an order.

For more information about web services, see the SOAP Web Services guide for your cloud services.

Developer Connect

Developer Connect: Overview

The Developer Connect portal provides information about the web services deployed to your Oracle Applications Cloud instance. You can use this information to integrate with or extend Oracle Applications Cloud and develop customized business solutions.

To open the Developer Connect portal, from the **Navigator** menu, select **Tools** - **Developer Connect**. This portal displays dynamic information of the web services, and the customization done to web services to integrate with Oracle Applications Cloud. You can synchronize the Developer Connect portal with your cloud instance to retrieve the latest web service information such as service attributes, operations, business objects, security policies, and WSDL files.

Use the Developer Connect portal to:

- View the summary of the web service information such as the business object that the service defines, life cycle status, and security policy.
- Discover the operations available for the selected web service, and the request and response payloads for each operation.
- View the hierarchy of the service data objects and know information such as the data type and whether it's a required field about custom attributes.
- Review the sample payload XMLs for the operations of the web service. You can add or edit sample payloads, and also delete custom sample payloads.

Web Service Life Cycle: Explained

A web service goes through three phases in a life cycle:

- Active: A service is active when it's delivered the first time, until it's deprecated.
- Deprecated: A service is deprecated when it's superseded by a newer version, or if there is a planned obsolescence in a future release. A service in this state is still supported and becomes obsolete in a later release.

  Note: You must use the active version of the service. If you were previously using a service that has been deprecated, then migrate to the new, active version.

- Obsolete: A service is obsolete when it's no longer shipped or supported.

Related Topics

- Message Patterns: Explained

Managing Web Service Sample Payloads: Worked Example

This example demonstrates how to add and edit a sample payload XML for a web service operation. It also describes how to delete a custom sample payload XML.

Adding a Sample Payload XML

Follow these steps to add a sample payload XML for the `getEntityList` operation of `Help Topic Abstract` Service:

1. From the **Navigator** menu, select **Tools** - **Developer Connect**.

2. On the **Web Service** overview page, search for `Help Topic Abstract` Service, and click the service display name.
3. On the **Summary** page, click the **Sample Payloads** tab, and then click **Add Sample Payload**.
4. Select `getEntityList` operation from the list, and enter a brief description.
5. Enter the payload XML, and click **OK**.

Editing a Sample Payload XML

The Developer Connect portal displays predefined and custom payloads of the web services. You can edit only the custom payloads. Follow these steps to edit a custom sample payload of the `getEntityList` operation of `Help Topic Abstract` Service:

1. On the **Web Service** overview page, select `Help Topic Abstract` Service.
2. On the **Summary** page of the web service, click the **Sample Payloads** tab and select `getEntityList` operation.
3. In the **Edit Sample Payload** dialog box, edit the payload XML and click **OK**.

Deleting a Sample Payload XML

You can delete only custom payloads, and not predefined payloads. Follow these steps to delete a custom sample payload of the `getEntityList` operation of `Help Topic Abstract` Service:

1. On the **Web Service** overview page, select `Help Topic Abstract` Service.
2. On the **Summary** page of the web service, click the **Sample Payloads** tab and select `getEntityList` operation.
3. Click the delete icon for the selected operation and click **OK**.

Importing Value Set Values to Oracle Applications Cloud: Worked Example

This example demonstrates how to use the information in the Developer Connect portal to import value set values to Oracle Applications Cloud.

Suppose a fictional partner application wants to extend it with certain functionality available in another application. Instead of creating the required business objects and attributes in this application, you can import them using a web service. Before you proceed with the import process, enable the access permissions for the web service and review the information in the Developer Connect portal:

- Synchronize the web services information
- Review the web service details
- Update the request payload

Synchronizing Web Services Information

You must synchronize the Developer Connect portal with your Oracle Applications Cloud instance to get the latest web service information. Follow these steps:

1. From the Navigator menu, select **Tools - Developer Connect**.
2. Click **Synchronize**.

> **Note:** The **Last Refreshed** date indicates when the Developer Connect portal was last synchronized with your cloud instance.

Searching And Reviewing Web Service Information

On the Web Services overview page, you can enter Manage File Import and Export in the Find field. You can also use Advanced Search option to find web service names that contain import, and select the relevant service from the search results.

To review the information:

1. On the Web Services overview page, select Manage File Import and Export Service. The Summary panel shows information such as the display name, business object that the service defines, life cycle status, QName, security policy used, and a brief overview of the service.
2. Click the Operations tab to view the operations supported by the web service.
3. Click the **uploadFiletoUCM** operation and review the result parameter in the response payload. This parameter holds the file ID in the WebCenter Content repository from which the value set values are imported.
4. Click the **valueSetValuesDataLoader** operation and review the **fileIdAtRepository** parameter in the request payload. This parameter holds the file ID in the WebCenter Content repository.
5. Click **WSDL File** link of the service to download the web service information.

Updating Request Payload

To add a sample payload to import the value set values:

1. Click the Sample Payloads tab and then click **Add Sample Payload**.
2. Select **uploadFiletoUCM** from the operation name list.
3. Enter a brief description of the payload in the description text box.
4. Add the payload to get the file ID from the WebCenter Content repository:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
 <soap:Body>
 <ns1:uploadFiletoUCM
xmlns:ns1="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/types/"
 ns2="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

 <ns1:document xsi:type="ns2:DocumentDetails">
 <ns2:fileName>VS123.txt</ns2:fileName>
 <ns2:contentType>plain/text</ns2:contentType> <ns2:content>
VmFsdWVTZXRDb2RlfEluZGVwZW5kZW50VmFsdWV8SW5kZXBlbmRlbnRWYWx1ZU51bWJlcnxJbmRlcGVuZGVudFZhbHVlRGF0ZXxJbmRlcGVuZGVu
 QX R0cmlidXRlNH
 xDdXN0b21WYWx1ZUF0dHJpYnV0ZTV8Q3VzdG9tVmFsdWVBdHRyaWJ1dGU2fEN1c3RvbVZhbHVlQXR0cmlidXRlN3xDdXN0b21WYWx1ZUF0dHJpY
 Hx 8fHx8fHx8fHw K
 UkVMN19CNl9WU19OVU1fSU5EfHx8fHwyMDAwfHx8fHxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODR8WXwyMDExLTEwLTAxfDIwMTItMTAtMzB8Mnx
 8f Hx8fHx8fHx8f H
 x8fHx8fHx8fHx8fHx8fApSRUw3X0I2X1ZTX0RBVEVfSU5EfHx8fHx8fDIwMzAtMDEtMDJ8fHxUZXN0aW5nIGZvciBCdWcgMTczNzU2ODQtMXxZf
 UV fREVQfDIwMzE t
 MDMtMDEgMDE6MDA6MDAuMDB8fHwyMDMxLTAzLTAxIDAxOjAwOjAwLjAwfDIwMzEtMDMtMDEgMDE6MDE6MDAuMDB8fHwyMDMxLTAzLTAxIDAxOjA
 </ns1:content>
 <ns2:documentAccount>fin$/tax$/import$</ns2:documentAccount>
 <ns2:documentTitle>VS</ns2:documentTitle>
 </ns2:document>
 </ns1:uploadFiletoUCM>
 </soap:Body>
</soap:Envelope>
```

5. Click OK.
6. Select **valueSetValuesDataLoader** from the operation name list.
7. Enter a brief description of the payload in the description text box.
8. Add the payload to read the contents from the file and import the value set values:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
 <soap:Body>
 <ns1:valueSetValuesDataLoader
xmlns:ns1="http://xmlns.oracle.com/oracle/apps/fnd/applcore/webservices/types/">
 <ns1:fileIdAtRepository>1234</ns1:fileIdAtRepository>
 </ns1:valueSetValuesDataLoader>
 </soap:Body>
</soap:Envelope>
```

Cross-Origin Resource Sharing

CORS: Explained

Cross-Origin Resource Sharing (CORS) enables secure cross domain communication from a browser. You can configure CORS headers to enable a client application running in one domain to retrieve resources from another domain, using HTTP requests. By default, browser-based programming languages, such as JavaScript, can access content only from the same domain. CORS provides a mechanism to overcome this limitation and access resources from different domains.

To enable CORS in Oracle Applications Cloud, you must set profile option values for the CORS headers in the Setup and Maintenance work area. This table lists the supported CORS headers.

CORS Header	Purpose
Access-Control-Allow-Origin	Contains a comma-separated list of trusted origins that a client application can access resources from.
Access-Control-Max-Age	Specifies the duration of storing the results of a request in the preflight result cache.
Access-Control-Allow-Methods	Contains a comma-separated list of permitted HTTP methods in a request.
Access-Control-Allow-Headers	Contains a comma-separated list of permitted HTTP headers in a request.
Access-Control-Allow-Credentials	Specifies whether a client application can send user credentials with a request.

Example

A client application retrieves resource X from server A, which runs the application logic. The client application then makes an HTTP request to retrieve resource Y from server B. To allow this cross-server request from the client application, you must configure the **`Access-Control-Allow-Origin`** header in server A. Otherwise, the request fails and displays an error message.

Related Topics

- Managing Profile Option Values for CORS Headers: Points to Consider
- Setting Profile Option Values: Procedure

Managing Profile Option Values for CORS Headers: Points to Consider

You can set profile option values for the CORS headers using the Manage Administrator Profile Values task in the Setup and Maintenance work area.

CORS Headers

This table lists the CORS headers that you can set profile option values for.

CORS Header	Profile Option Name (Profile Option Code)	Profile Option Values
Access-Control-Allow-Origin	Allowed Domains (ORACLE. ADF. VIEW. ALLOWEDORIGINS)	Valid values for allowed origins: • URL of the specific origin, for example, http://www.mydomain.com • Comma-separated list of origins, for example, http://www.mydomain.com, http://adc6160507.us.oracle.com, http://software.dzhuvinov.com • ***** to allow access to resources from all origins • Empty (no value set) to prevent access to resources from any origin **Note:** You must set a value for this header to enable CORS.
Access-Control-Max-Age	CORS: Access-Control-Max-Age (CORS_ ACCESS_ CONTROL_ MAX_AGE)	Default value for caching preflight request is 3600 seconds.
Access-Control-Allow-Methods	CORS: Access-Control-Allow-Methods (CORS_ ACCESS_ CONTROL_ ALLOW_ METHODS)	Default values for allowed methods are **OPTIONS**, **HEAD**, **GET**, **POST**, **PUT**, **PATCH**, **DELETE**.
Access-Control-Allow-Headers	CORS: Access-Control-Allow-Headers (CORS_ ACCESS_ CONTROL_ ALLOW_ HEADERS)	Default values for allowed headers are **Accept**, **Accept-Encoding**, **Cache-Control**, **Content-MD5**, **Content-Type**, **If-Match**, **If-None-Match**,**Origin**, **User-Agent**, **X-HTTP-Method-Override**, **X-Requested-By**. **Note:** You must include `Authorization`, with a comma as the delimiter, to the list of allowed headers. For example: **Accept**, **Accept-Encoding**, **Cache-Control**, **Authorization**
Access-Control-Allow-Credentials	CORS: Access-Control-Allow-Credentials (CORS_ ACCESS_ CONTROL_ ALLOW_ CREDENTIALS)	• **True** to enable sending credentials with the request • **False**, which is the default value, to disable sending credentials with the request

Related Topics

- Setting Profile Option Values: Procedure

Viewing Details About Predefined Scheduled Processes: Procedure

To use web services to run predefined scheduled processes, you need details about the processes. View job definitions that the processes are based on, for example to get information about parameters. You might also need to find security requirements for running the scheduled process.

Job Definitions

A job definition contains the metadata that determines how a scheduled process works and what options are available during submission.

To view job definitions:

1. Go to the Setup and Maintenance work area.
2. Run a search with **Manage Custom Enterprise Scheduler Jobs** as the search term.
3. In the search results, open the Manage Custom Enterprise Scheduler Jobs task for the application that contains the job definition. Tasks with names that end in **and Related Applications** include multiple applications.
4. In the Manage Job Definitions tab, select your job definition and click **Edit**.

   Note: Predefined job definitions are marked with an asterisk.

5. Cancel after you get the information you need.

Security

Privileges provide the access needed to run specific scheduled processes. Privileges are granted to duty roles, which are granted to job roles. To see which job roles inherit the needed privileges, use the Security Console or the security reference manuals for the appropriate product family.

Related Topics

- How can I see which applications a Manage Custom Enterprise Scheduler Jobs task includes?

Files for Import and Export

Files for Import and Export: Explained

You can import data into or export data out of the applications. A repository stores the content and the import and export processes handle the data movement into and out of the repository. Integration specialists stage data for import and export. Application administrators run processes to import data in repositories of content to application transaction tables, or retrieve data exported from applications.

Aspects of managing files for import and export involve the following:

- Using the File Import and Export page

- Interacting with content management
- Uploading to facilitate import
- Downloading to facilitate export
- Determining the file size

The File Import and Export Page

Use the File Import and Export page to upload content to or download content from the document repository of Oracle WebCenter Content. Search criteria on the page are limited to the minimum metadata of content management records needed for file import and export. To open the page, from the **Navigator** menu in the global area, select **Tools - File Import and Export**.

Contact the WebCenter Content Administrator for the following additional requirements:

- Information or assistance regarding general access to content management (including all metadata)
- Creating and managing accounts
- Programmatically uploading and downloading content

Interacting with Content Management

Each user with access to the File Import and Export page is assigned to one or more accounts in Oracle WebCenter Content. Accounts organize and secure access to the content items.

Uploading to Facilitate Import

Uploading a file creates a record in Oracle WebCenter Content. When you upload a file, you must also specify an account to which you upload the file. The account you specify determines which import process picks up that file to import it. You can upload any compatible file format, such as MIME, which the content repository can parse. However, the uploaded format must conform to the requirements of the import process. For example, the comma-separated values (CSV) file for the Load Interface File for Import process.

Downloading to Facilitate Export

Records in the search results table of the File Import and Export page provide download links to the files.

File Size

Upload and download don't apply the following by default:

- Data compression
- File splitting

The `UPLOAD_MAX_DISK_SPACE` parameter in the `web.xml` file determines the maximum allowable file size in content management. The default maximum size is 10240000 (10MB).

Files for Import and Export: Points to Consider

Interaction between the File Import and Export page and Oracle WebCenter Content requires securing content in an account. You can use the predefined accounts that are available in Oracle WebCenter Content.

Areas of file import and export involve the following:

- Defining security

- Searching records
- Accessing content in a new account
- Naming the account
- Deleting files

Defining Security

You require the File Import and Export Management duty role for accessing the File Import and Export page. This duty role is included in the predefined role hierarchy for integration specialist roles and product family administrator roles. Files in Oracle WebCenter Content are associated with an account so that only users having access to that account can work with those files. Account names are unique and each account is treated as discrete by access control. You can only upload and download files to and from content repositories that are linked to the accounts you can access. The underlying integrated content management handles security tasks such as virus scanning.

Searching Records

A record in Oracle WebCenter Content contains the metadata used for accessing the file. When a scheduled process is run on a file, the record for the file is assigned a process ID.

Accessing Content in a New Account

After you create a new account in Oracle WebCenter Content, restart the content server. Otherwise, when you use the File Import and Export page to access content in the new account, you may experience a delay. That's because the policy store is being updated with the new account information.

Naming the Account

If you create custom accounts for importing or exporting data, use the following conventions for naming the account:

- Don't include a forward slash (/) at the beginning or end.
- End the name with a dollar symbol ($) to avoid partial string matching.
- Use ($/) as a separator in the hierarchical structure.

For example: **`fin$/journal$/import$`** The File Import and Export page transforms account names by removing the $ separators. For example **`fin$/journal$/import$`** appears as **`fin/journal/import`**. The Remote Introdoc Client (RIDC) HTTP command-line interface (CLI) transforms the account name you specify without the $ symbol to one that includes the symbol. For example, fin/journal/import becomes **`fin$/journal$/import$`** in WebCenter Content.

Deleting Files

You can delete one file at a time when you use the File Import and Export page. To delete multiple files simultaneously from the content repository, use the standard service page in Oracle WebCenter Content.

External Data Integration Services for Oracle Cloud

External Data Integration Services for Oracle Cloud: Overview

Use External Data Integration Services for Oracle Cloud to load data into Oracle Fusion Applications from external sources, such as legacy systems and third-party applications.

External Data Integration Services for Oracle Cloud include the following components:

- Templates to structure, format, and generate the data file according to the requirements of the target application tables.
- File-based load process to load the data files into the interface tables.
- Application-specific data import processes to transfer data from interface tables to the application tables in your Oracle Fusion Applications.

The following flow diagram outlines the steps involved in the process:

For further information, see Using External Data Integration Services for Oracle ERP Cloud (2102800.1) on My Oracle Support at https://support.oracle.com.

Related Topics

- Using External Data Integration Services for Oracle ERP Cloud

Locating File Import Templates: Explained

The File Based Data Import guides in the Oracle Help Center (http://docs.oracle.com) include integration templates to help you prepare external data for loading and importing. Each template includes table-specific instructions, guidelines, formatted

spreadsheets, and best practices for preparing the data file for upload. Use the templates to ensure that your data conforms to the structure and format of the target application tables.

Preparing external data using templates involve the following tasks:

- Downloading templates
- Preparing data using the XLS template

Downloading Templates

To download the templates:

1. Open the File Based Data Import guide for your cloud service.
2. Locate the import process.
3. View the list of files.
   - Control files describe the logical flow of the data load process.
   - XLSM templates include the worksheets and macros for structuring, formatting, and generating your data file.

     Note: You can use XML templates to import data into Oracle Data Integrator.
4. Click the template link in the File Links table to download the file. For example, click **JournalImportTemplate.xlsm** in the Journal Import topic.

Preparing Data Using the XLS Template

To prepare your data in a spreadsheet format:

1. Open the XLS template. The first worksheet in each file provides instructions for using the template.

   Note: If you don't follow the instructions, you'll get data load errors and data import failures.
2. Save the file.
3. Click the **Generate CSV File** button.

   The macro generates a comma-separated values (CSV) file and compresses the file into a ZIP file. You must transfer the ZIP file to the content management server.

Opening the XML Template

To prepare your data in Oracle Data Integrator, download the XML templates using the following steps:

1. Import the family-level template as a model folder.
2. Import the product-level template as a model folder within the family-level model folder.
3. Import the product template as a model within the product-level model folder.
4. Create the integration project.
5. Create the package.
6. Add and configure these elements:
   - Integration projects
   - Content management document transfer utility
7. Execute the package. The package generates the CSV file and compresses it into a ZIP file.

Using Excel Integration Templates to Generate Data Files: Points to Consider

The File Based Data Import guides in the Oracle Help Center (http://docs.oracle.com) include integration templates to help you prepare external data for loading and importing. Each template includes table-specific instructions, guidelines, formatted spreadsheets, and best practices for preparing the data file for upload. Use the templates to ensure that your data conforms to the structure and format of the target application tables.

Template Structure

The integration templates include the following characteristics:

- Each interface table is represented by a separate worksheet.
- Each interface table field is represented by a worksheet column with a header in the first row.
- Each column header contains bubble text or comments that include details about the column, such as the expected data type, length, and, in some cases, other instructional text.
- Columns are formatted, where applicable, to match the target field data type to eliminate data entry errors.

  The worksheet columns appear in the order that the control file processes the data file.

For more information on the template structure, see the Instructions and CSV Generation worksheet in the template.

Template Requirements

To minimize the risks of an unsuccessful data load, ensure the following:

- Unused columns can be hidden, but not reordered or deleted.

  Caution: Deleting or reordering columns causes the load process to fail and results in an unsuccessful data load.

- External data must conform to the data type accepted by the control file and process for the associated database column.
- Date column values must appear in the YYYY/MM/DD format.
- Amount column values can't have separators other than a period (.) as the decimal separator.
- Negative values must be preceded by the minus (-) sign.
- Column values that require whole numbers include data validation to allow whole numbers only.
- For columns that require internal ID values, refer to the bubble text for additional guidance about finding these values.

After you finish preparing the data in the sheet, click the **Generate CSV File** button to generate a ZIP file containing one or more CSV files.

Using XML Templates to Generate Data Files for Integration: Explained

The File Based Data Import guides in the Oracle Help Center (https://docs.oracle.com) include XML integration templates that you use with Oracle Data Integrator to generate import files from your external data. Oracle Data Integrator provides a solution for integrating complex data from a variety of sources into your Oracle Fusion applications.

To use the XML templates and generate the import files, you must:

- Install and set up Oracle Data Integrator
- Create source and target models
- Create integration projects

Note: For Oracle Cloud implementations, you must upload the ZIP file to the content management repository in Oracle Cloud. For non-Cloud implementations, you can streamline the data integration process by installing the content management document transfer utility, which uses Oracle Data Integrator to transfer the ZIP file.

Using XML Integration Templates to Generate Data Files: Points to Consider

Use XML templates in Oracle Data Integrator to prepare your external data for the load and import process.

The File Based Data Import guides in the Oracle Help Center (https://docs.oracle.com) include three types of XML templates that you import as target models in your Oracle Data Integrator repository:

- Family level
- Product level
- Product

Family-Level XML Files

A family-level XML file is common to a group of product-level model folders and product models.

Consider the following points when you use family-level XML files:

- Use the family-level XML file to support assets in the family, for example, Oracle Fusion Financials or Human Capital Management.
- Import the family-level XML file into your Oracle Data Integrator repository prior to importing the other XML files.
- Import one family-level XML file as a model folder for each family of products.
- Import each family-level XML file as a top-level model folder.
- Import the family-level XML file one time; it supports all subsumed product-level model folders.
- Select Synonym Mode Insert Update as the import type.

Product-Level XML Files

A product-level XML file is common to a group of product models.

Consider the following points when you use product-level XML files:

- Use the product-level XML file to support assets in the product line, for example, Fixed Assets, General Ledger, or Payables.
- Import one product-level XML file as a model folder for each line of products.
- Import the product-level XML file as a model folder into your Oracle Data Integrator repository.
- Import the family-level XML file before you import product XML files.
- Import each product-level XML file as a mid-level model folder within the appropriate family-level model folder.
- Import the product-level XML file one time; it supports all subsumed product models.
- Select Synonym Mode Insert Update as the import type.

Product XML Files

A product XML file represents a specific interface table asset.

Consider the following points when you use product XML files:

- Import one product XML file as a model for each interface table or set of tables, for example, Mass Additions.
- Import the product XML file as a model into your Oracle Data Integrator repository after you import the product-level XML file.
- Import each product XML file as a model within the appropriate product-level model folder.
- Import each product XML file one time. The model is based on File technology.
- Select Synonym Mode Insert Update as the import type.
- After you import the product model, connect the model to the correct logical schema.

Creating Integration Projects That Generate Data Files for Import: Points to Consider

When you use Oracle Data Integrator (ODI) to generate the import data files from external data sources, you must configure an integration project. Integration projects are collections of ODI components that provide the procedural details of an integration from a source to a target. The source is your external data and the target is the import data file that you load and import into your Oracle Fusion Applications.

To create your integration project, you configure the following components:

- Knowledge modules
- Integration interfaces

Knowledge Modules

Knowledge modules contain the information that Oracle Data Integrator requires to perform a specific set of tasks against a specific technology or set of technologies. For example, check knowledge modules ensure that constraints on the sources and targets are not violated, and integration knowledge modules load data to the target tables.

Consider the following points about knowledge modules:

- Knowledge modules that you import into your integration project depend on the source and target technologies, as well as other integration-specific rules and processes.
- Multiple types of knowledge modules exist in ODI.
- Use the SQL File to Append module to create the import data file.

Integration Interfaces

Integration interfaces contain the sets of rules that define the loading of data from one or more sources to the target.

Consider the following points about integration interfaces:

- The source is the data store from your external data model.
- The target is the interface table data store, which is the CSV file from your interface table model.
- After you set up the source and target data stores, map the target fields to the source fields, or map source field values to target fields or constants.

Transferring Data Files to Oracle WebCenter Content Using Manual Flow: Explained

After you generate the ZIP file that contains the CSV data import file, transfer the ZIP file to the content repository.

Use any of the following methods to transfer file:

- File Import and Export page in Oracle Fusion Applications: Manual flow
- Oracle Fusion ERP Integration web service: Automated flow

Aspects of transferring data files to content management involve the following:

- Target accounts
- Accessing transferred content

Predefined Target UCM Accounts

You can transfer data files to predefined accounts in the Universal Content Management server that correspond to the interface table or assets.

To find the UCM account:

1. Open the File Based Data Import guide for your cloud service.
2. Locate your respective import process. For example, **Journal Import**.
3. View the UCM account in the Details section.

For more information, see the following guides in the Oracle Help Center (https://docs.oracle.com):

- SOAP Web Services guide for your cloud services
- File Based Data Import guide for your cloud services

Document Transfer Utility: Explained

The WebCenter Content Document Transfer Utility for Oracle Fusion Applications is a feature-set Java library that provides programmatic access to the content repository. Use the utility to import and export documents, such as import files that contain external data that you want to load into interface and application tables.

The library includes:

- Oracle WebCenter Content client command line tool
- Oracle Data Integrator (ODI) upload and download tools
- Oracle WebCenter Content remote intradoc client (RIDC)
- Oracle HTTPClient
- Oracle Fusion Applications branding and defaults

Options for the WebCenter Content Document Transfer Utility for Oracle Fusion Applications fall into these categories:

- DownloadTool program options
- UploadTool program options
- Debugging and silent invocation options

DownloadTool Program Options

This table describes the download tool program options:

Option	Description
url	Protocol-specific connection URL of content server
username	Username to leverage
password	Password, supplied in command line
passwordFile	Password, supplied in text file on the first line of the file
dID	ID of document revision to download dID is unique across repository dID changes with each revision **Note:** Alternatively, specify the dDocName and RevisionSelectionMethod to identify the dID to leverage.
dDocName	Content name Multiple revisions of a document can share the same dDocName value, otherwise it is unique.

Option	Description
	Note: You should also provide RevisionSelectionMethod value.
RevisionSelectionMethod	Revision to download Valid values: Latest, LatestReleased Default value: Latest
outputFile	Path and name of local file to write

Here you see a sample download invocation command:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.DownloadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=we1com3i
dID=21537 outputFile="/tmp/output.doc"
```

Here you see sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing download (GET_FILE) ...
Download successful.
```

UploadTool Program Options

This table describes the upload tool program options:

Option	Description
url	Protocol-specific connection URL of content server
username	Username to leverage
password	Password, supplied in command-line
passwordFile	Password, supplied in text file on the first line of the file
primaryFile	Fully-qualified path of local primary file to upload
dDocAccount	Destination account
dDocTitle	Document title
checkout	If uploading a document revision, check out the document from the repository before uploading the revision Valid values: true, false Default value: false

Option	Description
ignoreCheckoutErrorNeg22	Ignore error -22 (user has already checked-out the document) when checking-out the document. Valid values: true, false Default value: true

Here you see a sample upload invocation command:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.UploadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=we1com3i
primaryFile="/tmp/resume.doc" dDocTitle="Resume of MSMITH" -dDocAccount=/acme/sales
```

Here you see sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing upload (CHECKIN_UNIVERSAL) ...
Upload successful.
[dID=21537 | dDocName=UCMFA021487]
```

Debugging and Silent Invocation Options

This table describes the usable options which are common to all tools.

Option	Description
verbose	Verbose output Log filled with Request/ Response DataBinders
quiet	Minimal output
version	Print tool revision or version
log_file_name	Send program output to specified log file instead of the System.out log file
log_ file_append	Append log to existing log file rather than overwrite it Valid values: true, false Default value: false
socketTimeout	Override time out of socket Specify override time in seconds

You can use the tools to test the connection. Provide only the url, username, and password as you see in this sample test:

```
java -classpath "oracle.ucm.fa_client_11.1.1.jar" oracle.ucm.client.DownloadTool
url=http://ucmserver.com:16200/cs/idcplg username=weblogic password=we1com3i
```

Here you see the sample output:

```
Oracle WebCenter Content Document Transfer Utility
Oracle Fusion Applications
Copyright (c) 2013, Oracle. All rights reserved.
Performing connection test (PING_SERVER) ...
Connection test successful.
```

Load Interface File for Import Process

Use to load external setup or transaction data from a data file in the content repository to interface tables. The process prepares the data for import into application tables.

You run this process from the Scheduled Processes page. You can run it on a recurring basis.

Before running this process, you must:

1. Prepare your data file.
2. Transfer the data file to the content repository.

Parameters

Import Process

Select the target import process.

Data file

Enter the relative path and the file name of the *.zip data file in the content repository.

Importing Data into Application Tables: Procedure

The final destination for your external data is the application data tables of your Oracle Fusion application.

Importing data into application tables involves the following:

- Loading data into interface tables
- Finding and submitting the import process

Loading Data into Interface Tables

Interface tables are intermediary tables that store your data temporarily while the application validates format and structure. Run the Load Interface File for Import scheduled process to load data from the data file into the interface table that corresponds to the template that you use to prepare the data.

To load your data into interface tables, submit the Load Interface File for Import scheduled process using the following steps:

1. From the Navigator, click **Tools**.
2. Click **Scheduled Processes**.
3. Click the **Schedule New Process** button.
4. Search and select the Load Interface File for Import job.
5. On the Process Details page:
   a. Select the target import process.
   b. Enter the data file name.

6. Submit the process.

If the process is successful, the status is SUCCEEDED and the process populates the interface tables. If the process isn't successful, the status is ERROR.

Note: The data file remains in the content repository after the process ends.

Finding and Submitting the Import Process

Run the appropriate import process to import the data into the interface tables of your Oracle Fusion application.

To import your data into the application tables:

1. From the Navigator, click **Tools**.
2. Click **Scheduled Processes**.
3. Click the **Schedule New Process** button.
4. Search and select the import process for the target application tables.
5. On the Process Details page, select the process that corresponds to the data that you're importing. For example, **Journal Import**.

   If you prepared your data using the spreadsheet template, select the process shown in the Overview section of the spreadsheet.
6. Submit the process.

If the process is successful, the status is SUCCEEDED. The data in the interface tables is validated and the successful records are imported into the Oracle Fusion application tables. If the process isn't successful, the status is ERROR.

Note: For more information on the process used for data prepared using the spreadsheet template, see the Instructions and CSV Generation tab of the spreadsheet template.

Correcting Import Load Process Errors: Explained

The Load Interface File for Import process ends in error if the load of the data file fails on any row. The Load File to Interface child process ends as an error or warning. All rows that were loaded by the process are deleted and the entire batch of records is rejected.

Correcting Data Upload Errors

To correct errors:

1. Review the error logs.
2. Change any structural or formatting anomalies in the data.
3. Generate the ZIP file containing the CSV files using the template.
4. Upload the file to the UCM server and resubmit the Load Interface File for Import process.
5. Repeat these steps until the process successfully loads all the data.

Correcting Import Process Errors

If the import process fails with errors:

1. Review the errors in the import log.
2. Correct the error records using the ADFdi correction spreadsheets.

53 Importing and Exporting Setup Data

Configuration Packages: Explained

A Configuration Package contains the setup import and export definition. The setup import and export definition is the list of setup tasks and their associated business objects that identifies the setup data for export as well as the data itself. When you create a configuration package only the setup export and import definition exists. Once you submit export, a snapshot of the appropriate setup data is added to the configuration package using the definition. You can continue making modifications to the setup data in the environment and create a new configuration package any time you need it.

You can generate the setup export and import definition implicitly or explicitly:

- A configuration package is created implicitly when you export setup data for an entire offering or any functional area from the Applications Administration page.
- A configuration package is created explicitly when you export setup data based on an implementation project. This method enables further customization of the configuration packages.

You generate the setup export and import definition by selecting an implementation project and creating a configuration package. The tasks and their associated business objects in the selected implementation project define the setup export and import definition for the configuration package. In addition, the sequence of the tasks in the implementation project determines the export and import sequence.

The tasks and their associated business objects in the selected configuration (offering, functional area or implementation project) define the setup export and import definition for the configuration package. In addition, the sequence of the tasks in the implementation project determines the export and import sequence.

Once a configuration package is exported, the setup export and import definition is locked and cannot be changed; that is, you cannot change the selection (add or remove) of tasks and their associated business objects, change their export and import sequence, nor the scope value selection. However, you can create a new configuration package with such modifications at any time.

Implementation Project Based Export and Import: Explained

Use an implementation project as the source for exporting setup data when you are required to customize the list of tasks or of objects you want to export setup data for.

You must explicitly create a configuration package from the Manage Configuration Packages page to export setup data for an implementation project. You generate the setup export and import definition by selecting an implementation project and creating a configuration package. The tasks and their associated business objects in the selected implementation project define the setup export and import definition for the configuration package. Depending on your needs, when you create a configuration package based on an implementation project, you can also customize some additional aspects, as explained here.

- Exclude some of the business objects from the configuration you selected to export setup data for.

You should limit to use this option when the corresponding setup data is already available in the target instance and therefore no data dependency issues appear during import.

- Change the default import sequence of the business objects

  Change the default import sequence of the business objects. It's strongly recommended that you limit using this option when you need to correct a data dependency issue and you fully understand the data relationships between the business objects of your configuration.

- Filter the setup data to export

Export

During export, appropriate setup data is identified based on the tasks in the implementation project used as source for the configuration package. The setup data in the configuration package is a snapshot of the data in the source application instance at the time of export. Once export completes, you can download the configuration package file as a zipped archive of multiple XML files, move it to the target application instance, and upload and import it. After exporting the setup data you may continue entering new or modifying existing setup data for your configuration. Since the configuration package is a snapshot of the setup data taken at the time export is initiated, you may need to take another snapshot of the same configuration or set of data later. Although you can always create a different configuration package, FSM provides you the ability to take another snapshot of the setup data using the same customized export and import definition by exporting the configuration package multiple times and creating multiple versions. While the export definition remains the same in each version, the setup data can be different if you modified the data in the time period between the different runs of the export process. Since each version of the configuration package has a snapshot of the data in the source instance, you can compare and analyze various versions of the configuration package to see how the setup data changed.

Import

During import, you first upload a configuration package created by the export process and then import the setup data. All setup data contained in the configuration package is imported into the environment you initiate the setup data import from. In the target application instance, the setup import process inserts all new data from the source configuration package that does not already exist, and update any existing data with changes from the source. Setup data that exists in the target instance but not in source will remain unchanged.

Moving Common Reference Objects

Moving Common Reference Objects: Overview

The common reference objects are used by several setup tasks in the Setup and Maintenance work area. The common reference objects become a part of the configuration package that is created for an implementation project. While moving the application content, for example, moving from test to the production phase of an implementation, attend to the nuances of these common reference objects.

Parameters

The common reference objects are represented as business objects. A single object can be referenced in multiple setup tasks with different parameters. In the configuration package created for the implementation project, parameters passed to

a setup task are also passed to the business objects being moved. As a result, the scope of the setup tasks is maintained intact during the movement.

Dependencies

Common reference objects may have internal references or dependencies among other common reference objects. Therefore, you must note all the dependencies before moving the objects so that there are no broken references among them.

Business Objects for Moving Common Reference Objects: Points to Consider

Common reference objects in Oracle Fusion Functional Setup Manager are used to move application setup content from one environment to another. For example, from a test environment to a production environment.

Choice of Parameters

The following table lists the business objects, the movement details, and the effect of the setup task parameter on the scope of the movement.

Note:

- You can move only the translations in the current user language.
- You can move the Oracle Social Network business objects and the Navigator menu customizations using the customization sets on the Customization Migration page.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Message	Messages and associated tokens	No parameters: All messages are moved. Parameter moduleType/ moduleKey Only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter messageName/ applicationId Only the specified message is moved.
Application Taxonomy	Application taxonomy modules and components	No parameters: All taxonomy modules and components are moved.
Application Attachment Entity	Attachment entities	No parameters: All attachment entities are moved. Parameter moduleType/ moduleKey Only attachment entities belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.
Application Attachment Category	Attachment categories and category-to-entity mappings	No parameters: All attachment categories and category-to-entity mappings are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		Parameter moduleType/ moduleKey Only attachment categories belonging to the specified module and its descendant modules in the taxonomy hierarchy along with the respective category-to-entity mappings are moved.
Application Document Sequence Category	Document sequence categories	No parameters: All categories are moved. Parameter moduleType/ moduleKey Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter code/ applicationId Only the specified document sequence category code is moved.
Application Document Sequence	Document sequences and their assignments	No parameters: All sequences are moved. Parameter moduleType/ moduleKey Only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved Parameter name: Only the specified document sequence is moved.
Application Descriptive Flexfield	Descriptive flexfield registration data and setup data	No parameters: All descriptive flexfields are moved. Parameter moduleType/ moduleKey Only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter descriptiveFlexfieldCode/ applicationId Only the specified descriptive flexfield is moved. Importing the metadata of a flexfield can change its deployment status. Therefore, you must redeploy if there are any affected flexfields. The import process automatically submits affected flexfields for redeployment. Also only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.
Application Extensible Flexfield	Extensible flexfield registration data and setup data, including categories	No parameters: All extensible flexfields are moved Parameter moduleType/ moduleKey Only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter extensibleFlexfieldCode/ applicationId Only the specified extensible flexfield is moved. Importing the metadata of

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		a flexfield can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment. Also, only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.
Application Key Flexfield	Key flexfield registration data and setup data	No parameters: All key flexfields are moved. Parameter moduleType/ moduleKey Only key flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter keyFlexfieldCode/ applicationId Only the specified key flexfield is moved. Importing the metadata of a flexfield can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment. Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.
Application Flexfield Value Set	Value set setup data	No parameters: All value sets are moved. Parameter moduleType/ moduleKey Only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter valueSetCode: Only the specified value set is moved. Importing the metadata of a value set can change the deployment status of flexfields that use the value set. Therefore, you must redeploy if there are any affected flexfields. The import process automatically submits affected flexfields for redeployment.
Application Reference Currency	Currency data	No parameters: All currencies are moved.
Application Reference ISO Language	ISO language data	No parameters: All ISO languages are moved.
Application Reference Industry	Industry data including industries in territories data	No parameters: All industries are moved.
Application Reference Language	Language data	No parameters: All languages are moved.
Application Reference Natural Language	Natural language data	No parameters: All natural languages are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Reference Territory	Territory data	No parameters: All territories are moved.
Application Reference Time zone	Time zone data	No parameters: All time zones are moved.
Application Standard Lookup	Standard lookup types and their lookup codes	No parameters: All standard lookups are moved. Parameter moduleType/ moduleKey Only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter lookupType: Only the specified common lookup is moved.
Application Common Lookup	Common lookup types and their lookup codes	No parameters: All common lookups are moved. Parameter moduleType/ moduleKey Only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter lookupType: Only the specified common lookup is moved.
Application Set-Enabled Lookup	Set-enabled lookup types and their lookup codes	No parameters: All set-enabled lookups are moved. Parameter moduleType/ moduleKey Only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter lookupType: Only the specified set-enabled lookup is moved.
Application Profile Category	Profile categories	No parameters: All profile categories are moved. Parameter moduleType/ moduleKey Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. name/ applicationId Only the specified category is moved.
Application Profile Option	Profile options and their values	No parameters: All profile options and their values are moved. Parameter moduleType/ moduleKey Only profile options and their values belonging to the specified module are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		Parameter profileOptionName: Only the specified profile option and its values are moved.
Application Profile Value	Profile options and their values	No parameters: All profiles and their values are moved. Parameter moduleType/ moduleKey Only profiles and their values belonging to the specified module are moved. Parameter categoryName/ categoryApplicationId Only profiles and their values belonging to the specified category are moved. Parameter profileOptionName: Only the specified profile and its values are moved.
Application Reference Data Set	Reference data sets	No parameters: All sets are moved.
Application Reference Data Set Assignment	Reference data set assignments	Parameter determinantType: Only assignments for the specified determinant type are moved. Parameter determinantType/ referenceGroupName Only assignments for the specified determinant type and reference group are moved.
Application Tree Structure	Tree structures and any labels assigned to the tree structure	No parameters: All tree structures (and their labels) are moved. Parameter moduleType/ moduleKey Only tree structures (and their labels) belonging to the specified module are moved. Parameter treeStructureCode: Only the specified tree structure (with its labels) is moved.
Application Tree	Tree codes and versions	No parameters: All trees are moved. Parameter moduleType/ moduleKey Only trees belonging to the specified module are moved. Parameter treeStructureCode: Only trees belonging to the specified tree structure are moved. Parameter TreeStructureCode/ TreeCode Only trees belonging to the specified tree structure and tree code are moved.
Application Tree Label	Tree structures and any labels assigned to the tree structure	No parameters: All tree structures (and their labels) are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		Parameter moduleType/ moduleKey Only tree structures (and their labels) belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter treeStructureCode: Only the specified tree structure (with its labels) is moved.
Application Data Security Policy	Database resources, actions, conditions, and data security policies	No parameters: All database resources/ actions/ conditions/ policies are moved. Parameter moduleType/ moduleKey Only database resources/ actions/ conditions/ policies belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved. Parameter objName: Only the specified database resource along with its actions/ conditions/ policies is moved. If the policies being moved contain reference to newly created roles, move the roles before moving the policies. If the source and target systems use different LDAPs, manually perform the GUID reconciliation after moving the data security policies.

Moving Related Common Reference Objects: Points to Consider

Certain common reference objects may use other common reference objects creating dependencies among the objects. During the movement of common reference objects, ensure that these dependencies or references aren't broken or lost.

Dependencies

The dependencies among the common reference objects may be caused by any of the following conditions.

- Flexfield segments use value sets
- Value sets may make use of standard, common, or set-enabled lookups
- Key flexfields may have an associated tree structure and key flexfield segments may have an associated tree code
- Tree codes and versions may be defined over values of a value set
- Data security policies may be defined for value sets that have been enabled for data security

You may decide to move one, some, or all of the business objects by including the ones you want to move in your configuration package. For example, you may decide to move only value sets, or move both value sets and their lookups as part of the same package. Whatever be the combination, Oracle recommends that during the movement of objects, you follow an order that maintains the dependencies among the objects.

While moving the business objects, adhere to the following order:

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, messages, and so on.

2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.

Note: In scenarios where there may be dependencies on other objects, you must move the dependencies before moving the referencing object. For example, if data security policies have dependencies on newly created security roles, you must move the security roles before moving the security policies.

Using Seed Data Framework to Move Common Reference Objects: Points to Consider

To move the common reference objects, you can use the Seed Data Framework (SDF). You can also use the command line interface of SDF to move the object setup data. For more information about seed data loaders including common reference object loaders, see Oracle Fusion Applications Developer's Guide.

Movement Dependencies

The seed data interface moves only the setup metadata. For example, if you use SDF to import flexfield metadata, the flexfield setup metadata is imported into your database. However, you must initiate the flexfield deployment process separately after seed data import to regenerate the runtime flexfield artifacts in the target environment. Similarly, if you use SDF to import data security metadata, you must first move any new referenced roles and then manually run the GUID reconciliation where required.

To ensure that the reference data is not lost during the movement, certain guidelines are prescribed. It is recommended that you perform the movement of object data exactly in the order given below.

Note: Only the translation in the current user language is moved.

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, attachments, reference data sets, document sequences, messages, and data security.
2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.
8. Move created reference data sets before moving any objects that reference them, such as reference data set assignments and set-enabled lookups.
9. Move created document sequence categories before moving any objects that reference them, such as document sequences.

10. Move created tree labels before moving any objects that reference them, such as trees.
11. Move created data security objects and policies before moving any objects that reference them, such as value sets.
12. Move created value sets before moving any objects that reference them, such as flexfields.
13. Move created trees before moving any objects that reference them, such as key flexfields.

Glossary

account rule

The rule that processing uses to derive complete accounts or segment values on a subledger journal entry. Conditions can be defined within the rule to derive a different account based on specific attributes of the transaction.

accounting attribute

Predefined fields that map to components of subledger journal entries. Sources are assigned to accounting attributes.

accounting event class

Categories that classify transaction types and group event types for accounting rules.

accounting event type

Represents a business operation that may have an accounting impact.

accounting method

A set of journal entry rules which determine how a subledger journal entry is created for each event class or event type.

accounting period

The fiscal period used to report financial results, such as a calendar month or fiscal period.

action

The kind of access, such as view or edit, named in a security policy.

ADF

Acronym for Application Developer Framework. A set of programming principles and rules for developing software applications.

ADFdi

Abbreviation for Application Development Framework Fusion Desktop Integration. A tool that allows you to export data from spreadsheet application into Oracle Fusion applications.

analytics

Business intelligence objects such as analyses and dashboards that provide meaningful data to help with decision making.

application feature

A standardized functionality that is available to implemented.

application identity

Predefined application level user with elevated privileges. An application identity authorizes jobs and transactions for which other users are not authorized, such as a payroll run authorized to access a taxpayer ID while the user who initiated the job is not authorized to access such personally identifiable information.

approved budget

Financial plan type designated as an approved cost budget, approved revenue budget, or both, whose versions are used for specific purposes (for example, as default budget versions for project performance reporting).

ASN

Abbreviation for advance shipment notice. Electronic data interchange (EDI) or Extensible Markup Language (XML) from a supplier that informs the receiving organization that a shipment is in transit. ASNs speed the receiving process by enabling the receiver to check in entire shipments without entering individual line information. The ASN may contain details including shipment date, time, and identification number; packing slip data; freight information; item detail including cumulative received quantities; country of origin; purchase order number; and returnable packing unit information.

assignment

A set of information, including job, position, pay, compensation, managers, working hours, and work location, that defines a worker's or nonworker's role in a legal employer.

autosuggest

Suggestions that automatically appear for a search field, even before you finish typing your search term. You can select any of the suggestions to run your search.

balancing segment

A chart of accounts segment used to automatically balance all journal entries for each value of this segment.

balancing segment value

The value of a balancing segment used to automatically balance journal entries.

baseline financial project plan

Key planned information for tasks and task assignments, including dates, costs, quantity, effort, and rates, that you can save from current financial project plan values. Setting a baseline for a project plan doesn't create a new plan version. Rather, current plan information is saved in baseline columns of the current project plan.

bill plan

A set of instructions on a contract that define how to invoice a customer. Multiple contract lines on a contract can use the same or different bill plans.

billing control

Contract feature that controls the types of transactions, dates, and amounts a customer may be invoiced for and revenue can be recognized for a contract or contract line. Define billing controls at the contract or contract line level.

borrowed and lent processing method

A method of processing cross-charge transactions that generates accounting entries to transfer costs or share revenue from the provider organization to the receiver organization within a legal entity.

budgetary control

Set of options and validation processes that determine which transactions are subject to validation against budgets to prevent overspending.

burden cost

Burden costs are legitimate costs of doing business that support raw costs and cannot be directly attributed to work performed.

burden cost base

The grouping of raw costs to which burden costs are applied.

burden cost code

A classification of overhead costs. A burden cost code represents the type of burden cost that you want to apply to raw cost. For each burden cost code in the burden structure, you specify what cost base it is applied to, the expenditure types it is associated with, and the order in which it is applied to raw costs within the cost base.

burden structure

Determines how expenditure types are grouped into burden cost bases and what types of burden costs are applied to the cost bases. A burden structure defines relationships between burden cost bases and burden cost codes, and between burden cost bases and expenditure types.

burdened cost

Cost of an expenditure item, including the raw cost and burden costs.

business function

A business process or an activity that can be performed by people working within a business unit. Describes how a business unit is used.

business intelligence catalog

The repository where all business intelligence objects, including analytics, reports, briefing books, and agents, are stored. The catalog contains separate folders for personal, shared, and custom objects.

business object

A resource in an enterprise database, such as an invoice or purchase order.

business unit

A unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy.

calendar event

A period that signifies an event, such as a public holiday or a training course, that impacts worker availability.

chart of accounts

The account structure your organization uses to record transactions and maintain account balances.

class category

Method of classifying projects. For example, use class categories to define project funding sources, investment strategies, or industry sectors. Class categories are associated with a set of values called class codes.

class code

Implementation-defined value within a class category that is used to classify projects. For example, a class category called Industry Sector can have class codes such as Construction, Banking, and Health Care.

clause adoption

Reusing a clause from the global business unit in local business units either by adopting the clause without change or by localizing it.

clause localization

A type of clause adoption where the adopted clause is edited to suit the local business unit needs.

clause numbering level

Specifies the determinant type of the document sequence for automatic clause numbering

clearing company

The intercompany clearing entity used to balance the journal.

condition

The part of a data security policy that specifies what portions of a database resource are secured.

constant

Holds the numeric value used to evaluate numeric conditions in Contract Expert rules. A constant permits you to reset the conditions of many rules with just one edit.

context

A grouping of flexfield segments to store related information.

context segment

The flexfield segment used to store the context value. Each context value can be associated with a different set of context-sensitive segments.

context-sensitive segment

A flexfield segment that may or may not appear depending upon a context. Context-sensitive segments are custom attributes that apply to certain entity rows based on the value of the context segment.

contract deviations

Differences between the contract terms in a contract and those in the contract terms template applied to that contract and any deviations from company policies as determined by Contract Expert feature rules.

Contract Expert

A feature that lets you create and evaluate business rules in the terms library such that the contract terms meet your business standards, by suggesting contract changes or additional clauses.

Contract Terms Library

A repository of standard clauses, contract terms templates, and business rules built using Contract Expert.

control budget account segment

Budget dimensions that validate budgetary controls. Budget dimensions are limited to chart of account segments, project attributes, and project resource attributes.

corporate rate type

Rate you define to standardize rates used in conversion of one currency to another over a period of time. This rate is generally a standard market rate determined by senior financial management for use throughout the organization.

CORS

Acronym for Cross-Origin Resource Sharing. A web service standard to enable a client application running in one domain to retrieve resources from another domain, using HTTP requests.

cost center

A unit of activity or a group of employees used to assign costs for accounting purposes.

cost organization

A grouping of inventory organizations that indicates legal and financial ownership of inventory, and which establishes common costing and accounting policies.

cost sharing

When an award is funded by a federal agency, a percentage of costs are picked internally and usually are not eligible for billing or overhead recovery.

country holding company

A legal entity that acts on behalf of several divisions within an enterprise, and is the legal employer in a country.

current planning period

The current project accounting period or accounting period (depending on the selected calendar type) for the purposes of financial planning.

data security

The control of access and action a user can take against which data.

data security policy

A grant of entitlement to a role on an object or attribute group for a given condition.

database resource

An applications data object at the instance, instance set, or global level, which is secured by data security policies.

denormalization

Groups hierarchical data in a single row for each lowest-level node in the hierarchy for performance improvement while querying the hierarchy.

department

A division of a business enterprise dealing with a particular area of activity.

description rule

The rule that defines description content that can appear on the subledger journal header and line.

descriptive flexfield

Customizable expansion space, such as fields used to capture additional descriptive information or attributes about an entity, such as a customer case. You may configure information collection and storage based on the context.

determinant

A value that specifies the use of a reference data set in a particular business context.

determinant type

An optional value that affects document sequencing in a transaction. The available determinant types are Business Unit, Ledger, Legal Entity, and Tax Registration.

determinant type

The value that affects sharing of reference data in a transaction across organizations, such as a business unit or a cost organization.

determinant value

A value specific to the selected determinant type of a document sequence. If Ledger is the determinant type for a document sequence, the determinant value is the specific ledger number whose documents are numbered by the document sequence. It is relevant in a document sequence assignment only if the document sequence has a determinant type.

DHHS Entity Number

An identification number issued to the institution by the Department of Health and Human Services agency, United States.

distribution factor

Numeric value that determines the budget, forecast, or project plan amounts distributed to financial periods corresponding to each of the ten spread points that make up a spread curve.

division

A business-oriented subdivision within an enterprise. Each division is organized to deliver products and services or address different markets.

document

Business objects for which you import transactions from source applications. Examples of documents are time cards, expense reports, usages, or miscellaneous transactions.

document entry

Represents distinct type of transactions for a document that need to be processed in different ways.

document sequence

A unique number that is automatically or manually assigned to a created and saved document.

encumbrance accounting

An accounting practice that creates journal entries for requisitions and purchase orders that will become expenditures when goods and services are invoiced or received. The recording of estimated costs before the actual expenditures allows managers to plan for the future impact of previous financial decisions.

enterprise

An organization with one or more legal entities under common control.

enterprise role

Enterprise roles provide users with access both to the application functions they need to perform their jobs as well as the permissions to access the data where they need to perform those functions. There are two types of enterprise roles: job roles and abstract roles. Job roles permit users to perform activities specific to their job. Abstract roles permit users to perform functions that span the different jobs in the enterprise.

entitlement

Grant of access to functions and data. Oracle Fusion Middleware term for privilege.

expenditure item

The smallest logical unit of expenditure you can charge to a project and task. For example, a time card item or an expense report item.

expenditure type

Classification of cost that you assign to each expenditure item in Project Financial Management applications.

expenditure type class

Specifies how an expenditure item is processed. For example, if you assign the Straight Time expenditure type class to an expenditure type, Project Financial Management uses labor cost schedules to calculate the cost of an expenditure item with that expenditure type and expenditure type class.

extensible flexfield

Customizable expansion space used to capture multiple sets of information within a context or multiple contexts. Some extensible flexfields let you group contexts into categories.

external system or external application

A system or application that is external to and not part of Order Management. An order capture system that resides upstream of Order Management is an example of an external system. A fulfillment application that resides downstream of Order Management is an example of an external application.

feature choice

A selection you make when configuring offerings that modifies a setup task list, or a setup page, or both.

financial plan type

Category or collection of either project budgets or project forecasts.

financial resource

A resource that uses currency as its unit of measure.

firm burden schedule

A burden schedule of burden multipliers that will not change over time. This is compared to provisional schedules in which actual multipliers are mapped to provisional multipliers after an audit.

fixed rate type

Rate you set between two currencies that remains constant. For example, a rate set between the euro currency and each Economic and Monetary Union (EMU) currency during the conversion to the euro currency.

flexfield

A flexible data field that you can customize to contain one or more segments or store additional information. Each segment has a value and a meaning.

flexfield segment

An extensible data field that represents an attribute and captures a value corresponding to a predefined, single extension column in the database. A segment appears globally or based on a context of other captured information.

global area

The region at the very top of the user interface that remains the same no matter which page you're on.

global search

The search in the global area that lets you search across many business objects.

grade

A component of the employment model that defines the level of compensation for a worker.

import

In the context of data integration, the transfer of data from interface tables to **application tables**, where the data is available to application users.

incident

A collection of diagnostic information about a critical error, providing details about the state of the application when the issue occurred.

infolet

A small, interactive widget on the home page that provides key information and actions for a specific area, for example social networking or your personal profile. Each infolet can have multiple views.

intercompany billing

Feature that enables you to bill an internal customer for work done on a receiver project and transfer internal revenue or costs between provider and receiver organizations.

interface table

A database table that stores data during data transfer between applications or from an external system or data file.

interproject billing

Feature that enables you to bill an internal customer for work done on a provider project. The cost of work performed is not reflected on the receiver project until the project receives an invoice for the work.

inventory organization

A logical or physical entity in the enterprise that tracks inventory transactions and balances, stores definitions of items, and manufactures or distributes products.

invoice method

Rule defined by the implementation team that determines the calculation method of invoice amounts for contracts during invoice generation.

invoice method classification

Predefined classification for an invoice method that determines the basis for calculating invoice amounts.

IPF Number

Abbreviation for Institutional Profile File Number. An identification number issued by National Institute of Health to the institution.

item categories

Term used to refer to the categories maintained in Product Information Management (PIM) under the purchasing catalog. Within procurement, this category is referred to as a purchasing category. Item categories are used to group items for various reports and programs. For Procurement, every item must belong to an item category.

item master

A collection of data that describes items and their attributes recorded in a database file.

job

A generic role that is independent of any single department or location. For example, the jobs Manager and Consultant can occur in many departments.

job definition

The metadata that determines what a job does and what options are available to users when they submit the scheduled process. A job is the executable for a scheduled process.

job role

A role, such as an accounts payable manager or application implementation consultant, that usually identifies and aggregates the duties or responsibilities that make up the job.

journal

An element of a journal entry consisting of the name, accounting date, category, ledger, and currency for single currency journal entries. Used to group journal lines.

journal category

A name used to group journal entries with similar characteristics, such as adjustments, accruals, or reclassifications.

journal entry

Point of entry of business transactions into the accounting system. Chronological record, with an explanation of each transaction, the accounts affected, and the amounts to increase or decrease each account.

journal line

An element of journal entries consisting of account combinations and credit or debit amounts. Optionally, contains statistical quantities, currency information for multicurrency journals, and additional information.

journal line rule

A rule that includes options to convert transactional data into a subledger journal line. Conditions can be defined within the rule so it's only used based on specific attributes of a transaction.

journal source

A name that indicates the origin of journal entries, such as payables, receivables, or manual. Used as an attribute in automatic posting and journal import processes.

key flexfield

Configurable flexfield comprising multiple parts or segments, each of which has a meaning either individually or in combination with other segments. Examples of key flexfields are part numbers, asset category, and accounts in the chart of accounts.

key flexfield structure

The arrangement of segments in a key flexfield. In some cases, you can define multiple structures for a single key flexfield.

KPI

Abbreviation for key performance indicator. Key performance indicators (KPIs) measure how well an organization or individual project meets an operational, tactical, or strategic objective that is critical for the current and future success of the organization. Examples are: Period-to-Date (PTD) Actual Spent Labor Effort Percentage, PTD Actual Spent Equipment Effort Percentage, and PTD Actual Margin Percentage.

KPI category

A group of key performance indicators that belong to a specific performance area. Examples are: cost, profitability, financial, and schedule.

KPI period determination date

Date used to determine the accounting calendar and project accounting calendar periods for performance measure calculations during key performance indicator (KPI) value generation.

labor costing rule

Determines the rule to process payment for labor resources, such as exempt, nonexempt, or hourly. It is also used for planning, budgeting and forecasting transactions when the plan type is configured to use actual rates.

legal authority

A government or legal body that is charged with powers such as the power to make laws, levy and collect fees and taxes, and remit financial appropriations for a given jurisdiction.

legal employer

A legal entity that employs people.

legal entity

An entity identified and given rights and responsibilities under commercial law through the registration with country's appropriate authority.

legal jurisdiction

A physical territory, such as a group of countries, single country, state, county, parish, or city, which comes under the purview of a legal authority.

legal reporting unit

The lowest level component of a legal structure that requires registrations. Used to group workers for the purpose of tax and social insurance reporting or represent a part of your enterprise with a specific statutory or tax reporting obligation.

legislative data group

A means of partitioning payroll and related data. At least one legislative data group is required for each country where the enterprise operates. Each legislative data group is associated with one or more payroll statutory units.

line of business

Set of one or more highly related products which service a particular customer transaction or business need. Refers to an internal corporate business unit.

load

In the context of data integration, the transfer of external data from data files to the receiving **interface tables** in preparation for an import into application tables.

LOC

Acronym for Letter of Credit. A mechanism to request cash from various federal agencies based upon disbursements. Grantees are provided a single letter of credit with each of the sponsoring agencies.

lookup code

An option available within a lookup type, such as the lookup code BLUE within the lookup type COLORS.

lookup type

The label for a static list that has lookup codes as its values.

mainline metadata

The primary branch of metadata that a sandbox is published to. Once published, changes made in the sandbox become available to all users.

mapping set

Maps a combination of input source values to specific output values. The output value of a mapping set is used to derive accounts or segments in account rules.

model profile

A collection of the work requirements and required skills and qualifications of a workforce structure, such as a job or position.

natural account

Categorizes account segment values by account type, asset, liability, expense, revenue, or equity, and sets posting, budgeting, and other options.

natural account segment

A chart of accounts segment used to categorize your accounting transactions by account type: asset, liability, owner's equity, revenue, or expense.

Navigator

The menu in the global area that you can use to open the work areas and dashboards that you have access to.

nonlabor resource

An asset or pool of assets. For example, you can define a nonlabor resource with a name PC to represent multiple personal computers that your business owns.

offering

A comprehensive grouping of business functions, such as Sales or Product Management, that is delivered as a unit to support one or more business processes.

organization

A unit of an enterprise that provides a framework for performing legal, managerial, and financial control and reporting. Organizations can be classified to define their purpose, for example, as departments, divisions, legal entities, and can own projects and tasks, or incur project expenses.

organization classification

Controls the information that you can set up at the organization level. You can assign multiple classifications to one organization, or define separate organizations to represent different types of entities. For example, you can classify an organization as both a legal entity and a department.

organization costing rule

Maps labor costing rules and rate schedules to organizations for labor costing. Also maps rate schedules to organizations for costing nonlabor items.

organization hierarchy

A tree structure that determines the relationship between organizations.

OWLCS

Abbreviation for Oracle WebLogic Communication Services. Offers the TPCC service to Oracle Sales Cloud and sets up the calls using SIP integration with the telephony network.

panel tab

A tab on the right side of the page that slides out when you open it. Each panel tab has an icon as the tab label.

party fiscal classification

A classification used by a tax authority to categorize a party for a tax.

payroll statutory unit

A legal entity registered to report payroll tax and social insurance. A legal employer can also be a payroll statutory unit, but a payroll statutory unit can represent multiple legal employers.

performance measure

Performance measures are system-defined criterion for performance or schedule that are used to determine if a project is on track.

planning amount allocation basis

Represents the method of distributing financial plan amounts to calendar periods for performance data summarization.

planning options

User-definable options, including plan settings, rate settings, currency settings, and generation options, used to control planning scenarios. Budget or forecast versions inherit planning options defined for financial plan types. Similarly, project plans at the project template or project level inherit planning options defined for project plan types.

position

A specific occurrence of one job that is fixed within one department. It is also often restricted to one location. For example, the position Finance Manager is an instance of the job Manager in the Finance Department.

primary balancing segment value

A segment value used to represent a legal entity in the chart of accounts and automatically balance all intercompany and intracompany transactions and journal entries.

primary forecast

Financial plan type designated as a primary cost forecast, primary revenue forecast, or both. The versions are used for specific purposes, for example, as default forecast versions for project performance reporting.

primary ledger

Main record-keeping ledger.

privilege

A grant of access to functions and data; a single, real world action on a single business object.

process category

Group of one or more logically related event classes that can be used to restrict which events are processed by the Create Accounting process.

process set

A scheduled process that contains multiple individual processes or other process sets.

profile option

User preferences and system configuration options that users can configure to control application behavior at different levels of an enterprise.

profile option level

The category or layer that defines a profile option. Site, Product, and User are the predefined levels.

profile option value

The setting mapped to the level of a profile option. A profile option may have multiple values set at different levels, such as Site or User.

project accounting period

Periods that are maintained by business unit and used to track budgets and forecasts, summarize project amounts for reporting, and track project status.

project and task owning organization

An organization that can own projects and tasks for the purpose of reporting, security, and accounting.

project expenditure organization

An organization that can incur expenditures and hold financial plans for projects.

project type

Controls basic project configuration options, such as burdening, billing, and capitalization options, and class categories that are inherited by each project associated with the project type.

project unit

An operational subset of an enterprise, such as a line of business, that conducts business operations using projects, and needs to enforce consistent project planning, management, analysis, and reporting.

provider business unit

Business unit with resources that provide services to another project (provider project) or business unit. For cross-charge transactions, the provider business unit is the expenditure business unit; the project business unit owns the intercompany billing project.

provider organization

Organization that provides services to a project owned by another organization.

provider project

Contract project that performs work on behalf of another (receiver) project. In interproject billing, the provider project bills the receiver project through an Oracle Fusion Payables invoice generated by the Update Invoices from Oracle Fusion Receivables process.

provisional burden schedule

A burden schedule of estimated burden multipliers that are later audited to determine actual rates. You apply actual rates to provisional burden schedules by replacing the provisional burden multipliers with actual burden multipliers. The application processes adjustments that account for the difference between the provisional and actual calculations.

PSTN

Abbreviation for public switched telephone network which is the network of the world's public circuit-switched telephone networks.

Query By Example

The row of fields directly above table column headers, used for filtering the data in the table.

rate-based planning resource

Resource for which cost and revenue are calculated, based on a rate applied to the quantity that's entered in a unit of measure other than currency.

raw cost

Costs that are directly attributable to work performed. Examples of raw costs are salaries and travel expenses.

receiver business unit

Business unit whose projects receive services from another project or business unit. For cross-charge transactions, the receiver business unit is the business unit that owns the receiver project.

receiver organization

Organization that receives services provided by the provider organization.

receiver project

Project for which work is performed by another (provider) project. In interproject billing, the receiver project incurs costs from an Oracle Fusion Payables invoice generated by the Update Invoice from Oracle Fusion Receivables process performed for the provider project.

recognized revenue

Sum of all revenue distributions created for a billing transaction.

reference data

Data in application tables that is not transactional or high-volume, which an enterprise can share across multiple organizations. For example, sales methods, transaction types, or payment terms.

reference data object

Business objects such as project types, rates schedules, and financial plan types that can be shared across organizations. Define reference data sets if you want to group the values you define for these objects and share them with certain or all organizations.

reference data set

Contains reference data that can be shared across a number of business units or other determinant types. A set supports common administration of that reference data.

reference data sharing

Facilitates sharing and reuse of common transactional data entities within the parts of a business flow or across organizations.

reference group

A logical collection of reference data sets that correspond to logical entities, such as payment terms defined across multiple tables or views. Based on the common partitioning requirements across entities, the reference data sets are grouped to facilitate data sharing among them.

reference object

Standardized data model containing reference information owned by other subledger applications and used by the Create Accounting process to create subledger journal entries from accounting events.

regional area

The collapsible region in the work area that lets you control what's in the local area, for example by selecting a task or running a search.

registration

The record of a party's identity related details with the appropriate government or legal authorities for the purpose of claiming and ensuring legal and or commercial rights and responsibilities.

report

An output of select data in a predefined format that's optimized for printing.

resource breakdown structure

One or more hierarchies of resources, resource types, resource formats, or other resource groupings that are used for financial and project planning and for viewing planned and actual amounts for a project.

revenue category

Source of revenue for an organization. Revenue categories group expenditure types and event types for revenue and invoices. Also used to define accounting rules.

revenue method

Rule defined by the implementation team that determines the calculation method of revenue amounts for contracts during revenue generation.

revenue method classification

Predefined classification for a revenue method that determines the basis for calculating revenue amounts.

role

Controls access to application functions and data.

sandbox

A testing environment that isolates untested code changes from the mainline environment so that these changes don't affect the mainline metadata or other sandboxes.

scenario dimension members

A scenario dimension is used to differentiate actual cost, current budget, original budget, prior forecast, current forecast, and variances between different plan types within summarization.

scheduled process

A program that you run to process data and, in some cases, generate output as a report.

segment

A segment is a single field within a flexfield and maps to a single table column in your database. When customizing a flexfield, you define the appearance and meaning of individual segments.

set

Classified and grouped reference data that organizational entities share.

set enabled

A property that describes entities that an organization shares as reference data. For example, you can indicate a lookup, customer, location, or document attachment as set enabled.

source

The application from which a transaction originates.

source

Contextual and reference information from subledger applications used in conjunction with accounting rules to create subledger journal entries.

source system

A system that a non-Oracle software provider provides, or an internal system that creates events that the Oracle Fusion Accounting Hub uses.

space

A collaboration feature that supports people working on a common area of interest or goal. Space members can share content, send messages to one another, track group events and tasks, and more.

sponsor

Organization which grants funding to the award.

spot rate type

Rate you enter to perform conversion based on this rate as of a specific date. This rate applies to the immediate delivery of a currency.

springboard

The grid of icons on the home page or the strip of icons above all simplified pages. Use the icons to open pages.

subledger

A low-level ledger that stores and manages the details that substantiate the monetary value stored in the general ledger. Oracle Fusion Receivables and Oracle Fusion Payables are examples of subledgers.

subledger journal entry

A detailed journal entry generated for a transaction in a subledger application.

subledger journal entry line

An individual debit or credit line that is part of a subledger journal entry.

subledger journal entry rule set

A set of rules defining how to generate a complete journal entry for an accounting event.

suggestion group

Category of suggestions that appear in the autosuggest for the global search.

supporting reference

Stores additional source information about a subledger journal entry line which can be used to establish a subledger balance for source values for an account.

tax registration

The registration of a party with a tax authority that confers tax rights and imposes certain tax obligations.

territory

A legally distinct region used in the country field of an address.

third-party application source

Non-Oracle application source of transactions.

trading partner

An external party, such as a supplier, in the Oracle B2B application for which electronic documents are sent or from which documents are received. A trading partner in Oracle B2B corresponds to a supplier site.

transaction object

Standardized data model containing transaction information used by the Create Accounting process to create subledger journal entries from accounting events.

tree

Information or data organized into a hierarchy with one or more root nodes connected to branches of nodes. A tree must have a structure where each node corresponds to data from one or more data sources.

tree structure

A set of guidelines or a framework applied to create a tree, include data, version a tree, or access a tree.

tree version

An instance of a tree that includes life cycle elements such as start and end dates, and indicates whether the tree is active. If a tree is associated with a reference data set, all tree versions belong to one set.

user rate type

Rate you enter at journal entry time to convert foreign currency transactions to your ledger currency.

value set

A set of valid values against which values entered by an end user are validated. The set may be tree structured (hierarchical).

work area

A set of pages containing the tasks, searches, and other content you need to accomplish a business goal.

work relationship

An association between a person and a legal employer, where the worker type determines whether the relationship is a nonworker, contingent worker, or employee work relationship.

workflow

An automated process that passes a task from one user (or group of users) to another to view or act on. The task is routed in a logical sequence to achieve an end result.