

# Oracle Fusion Cloud Sales Automation

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## **Implementing Incentive Compensation**

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Author: Kristin Penaskovic

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# Get Help

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

## Get Help in the Applications

Use help icons  to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons.

## Get Support

You can get support at [My Oracle Support](#). For accessible support, visit [Oracle Accessibility Learning and Support](#).

## Get Training

Increase your knowledge of Oracle Cloud by taking courses at [Oracle University](#).

## Join Our Community

Use [Cloud Customer Connect](#) to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest *ideas* for product enhancements, and watch events.

## Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the [Oracle Accessibility Program](#). Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

## Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to [oracle\\_fusion\\_applications\\_help\\_ww\\_grp@oracle.com](mailto:oracle_fusion_applications_help_ww_grp@oracle.com).

Thanks for helping us improve our user assistance!





# 1 About This Guide

## Audience and Scope

This guide provides information on how implementors and administrators can configure and set up Incentive Compensation. It describes how to configure required common applications as well as setup tasks for Incentive Compensation.

This guide doesn't cover your initial sign in, setting up users, or security.

## Related Guides

You can refer to the these related guides to understand more about the business flows and functionality covered in this guide.

Title	Description
Oracle Fusion Cloud Sales Automation: Securing Sales and Fusion Service	Describes how to enable user access to Oracle Sales and Service functions and data, including Incentive Compensation.
Oracle Fusion Cloud Sales Automation: Using Incentive Compensation	Describes the user tasks for the incentive compensation business process, from creating and managing compensation plans to reviewing and monitoring incentive plans and performance data.
Oracle Fusion Cloud Sales Automation: Security Reference for Incentive Compensation	Provides a reference of roles, role hierarchies, privileges, and policies as delivered for Incentive Compensation.

### *Related Topics*



# 2 Implementation Overview

## Overview of the Sales Offering

To start an implementation of Sales you need to create a "sales setup user" and opt in to the offerings applicable to your company's business requirements.

You can get information about setting up the sales setup user in the [Creating Setup Users Overview](#).

When you start your implementation and opt in to the Sales offering, you also need to opt in to Functional Areas and Features that best fit your business requirements. Offerings, Functional Areas, and Features all work together in your implementation. Here's how:

- An offering represents a collection of business processes, such sales or service, that are supported by Oracle Applications Cloud. Each subscription of Oracle Cloud provides license to use one or more offerings and they're the starting point of all implementations. An offering consists of multiple functional areas and features.
- A functional area represents one or more business processes within an offering. Territory Management is an example of a functional area. Functional areas may represent a core operation of the offering or they may be optional depending on business requirements.
- Features are business practices or methods applicable to functional areas. Like functional areas, you can opt in or out of a feature based on business requirements.

You will use the Sales offering to set up accounts, contacts, leads, opportunities, and much more. The Sales offering also includes Incentive Compensation functional areas and features for ease of access and more streamlined set up.

**CAUTION:** Don't use the Incentive Compensation offering to implement Incentive Compensation. Instead, see the [Implementing Incentive Compensation](#) guide for implementation information.

This table gives you more information about what's included in the Sales offering. For the full list of functional areas and features in this offering, use the Associated Features report that you review when you plan the implementation of your offering. See the "Plan Your Implementation" topic in the [Oracle Applications Cloud Using Functional Setup Manager](#) guide for information about how to view the Associated Features report.

Functional Area	Description
Company Profile	Define and manage information about legal structure, financial reporting, and geographies and currencies in which the company conducts business.
Users and Security	Set up your initial implementation setup users, sales users and hierarchy, and enable users to perform functions related to their roles.
Sales Foundation	Set up common components of the sales application including geographies, search, activities, tasks, notes, approvals, audit policies, and data quality.
Sales Catalog and Products	Define the sales catalog and product hierarchy.
Accounts and Contacts	Configure the setup to import accounts and contacts.

Functional Area	Description
Sales Campaigns	Configure and manage templates, lookup choices, and other options for sales campaigns.
Leads	Define and manage the setup related to sales leads creation. Define option settings, such as assignment rules, assessments, and qualification templates. Update lookup values that provide choices for sales lead attributes.
Opportunities	Set up opportunity management options and assignment.
Territories	Set up territory management options, dimensions, and metrics.
Sales Forecasting	Configure forecasting parameters, such as time periods, and the processes for generating and refreshing forecasts.
Quotas	Configure the setup to support sales quotas.
Business Plans	Create formal statements of strategic business goals and how they can be achieved within a given period. For example, a partner business plan may state the goal for the partner to achieve sales of \$500,000 of a vendor's products, during FY2021.
Partner Relationship Management	Set up partners, partner programs, marketing development funds, and deal registrations.
Sales Contracts	Manage configuration settings for creation and management of sales contracts.
Subscriptions	Manage configuration settings for the creation and management of subscriptions.
Incentives	Configure incentive compensation options to calculate and pay incentives such as commissions and bonuses.
Integrations	Configure integrations for extending the sales applications.

*Related Topics*

- [Plan Your Implementation](#)
- [About Setup Users and Security](#)

# 3 Enterprise Structures for Incentive Compensation

## Overview of Enterprise Structures

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.

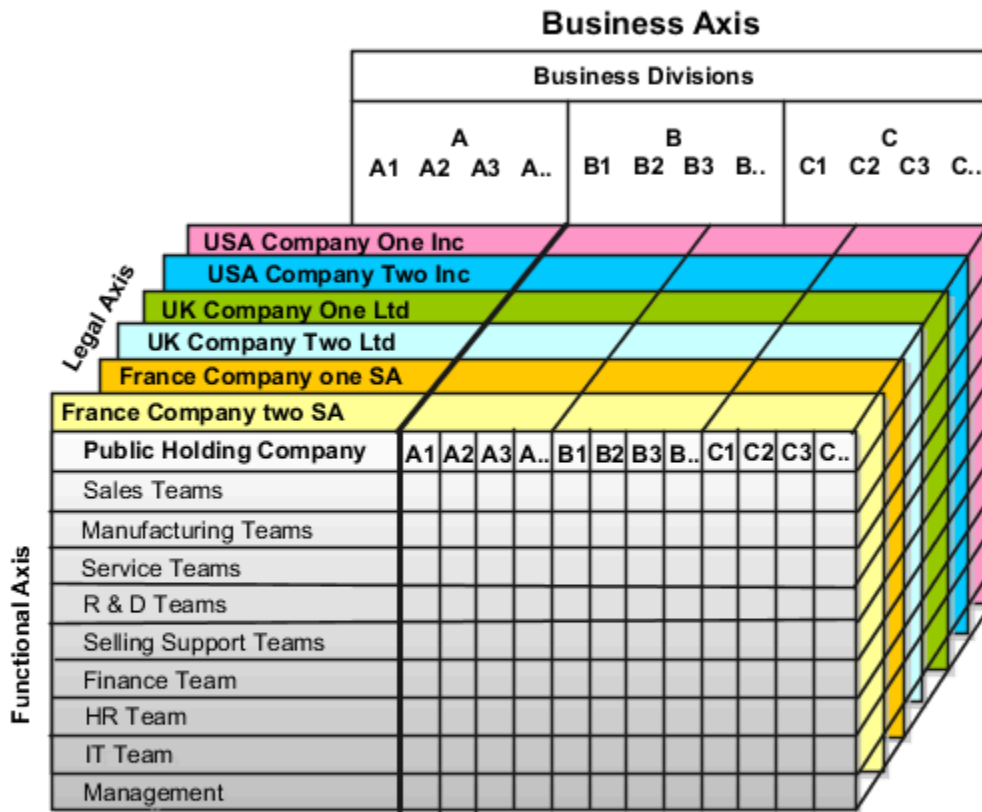
- Legal
- Managerial
- Functional

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

Align these structures with your strategic objectives.

This figure illustrates a grid with Business Axis, representing the enterprise division, Legal Axis representing the companies, and the Functional Axis representing the business functions.



## Legal Structure

The figure illustrates 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 within the laws of each country in which their enterprise operates.

The figure illustrates:

- 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 don't 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, 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. 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 HCM Information

## Define Enterprises

An enterprise is a collection of legal entities sharing common control and management.

### Enterprise Defined

When implementing Oracle Fusion Cloud Applications you operate within the context of an enterprise that has already been created in the application for you. This is either a predefined enterprise or an enterprise that has been created in the application by a system administrator. An enterprise organization captures the name of the deploying enterprise and the location of the headquarters. In Oracle Fusion Applications, an organization classified as an enterprise is defined before defining any other organizations in the HCM Common Organization Model. All other organizations are defined as belonging to an enterprise.

## Enterprise Information for Non-HCM Users

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're 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 aren't relevant outside of Oracle Fusion HCM.

## Locations

### How Incentive Compensation Uses Locations

Sales managers can see the locations of their participants on a map on the My Team's Compensation UI. If their participants are located in the United States, then the map also displays each participant's geographic territory.

When you create or edit a user you can choose a location in the Location field to make a participant's location available on the map. In the Setup and Maintenance work area, use the Manage Users task:

- Offering: Sales
- Functional Area: Users and Security
- Task: Manage Users

You can hide the My Team map by setting the profile option CN\_MY\_TEAMS\_COMPENSATION\_MAP to No. In the Setup and Maintenance work area, use the Manage Incentive Profile Values task:

- Offering: Sales
- Functional Area: Incentives



- Task: Manage Incentive Profile Values

## Locations

A location identifies physical addresses of a workforce structure, such as a department or a job. You create and manage locations using the Location Details quick action in the Workforce Structures area on the My Client Groups tab.

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.

When specifying the location address, you can default the country in the location responsive pages. You configure the default location country on the **Manage Enterprise HCM Information** page. If you don't configure any default country, then the country is automatically defaulted to United States in the location address.

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.

A point to note is that the Ship-to Site, Receiving Site, Bill-to Site, Office Site, and Designated Receiver fields in the Shipping Details section of a location setup are for information purpose only and can be used to report upon. They aren't currently used by any feature or process within HCM.

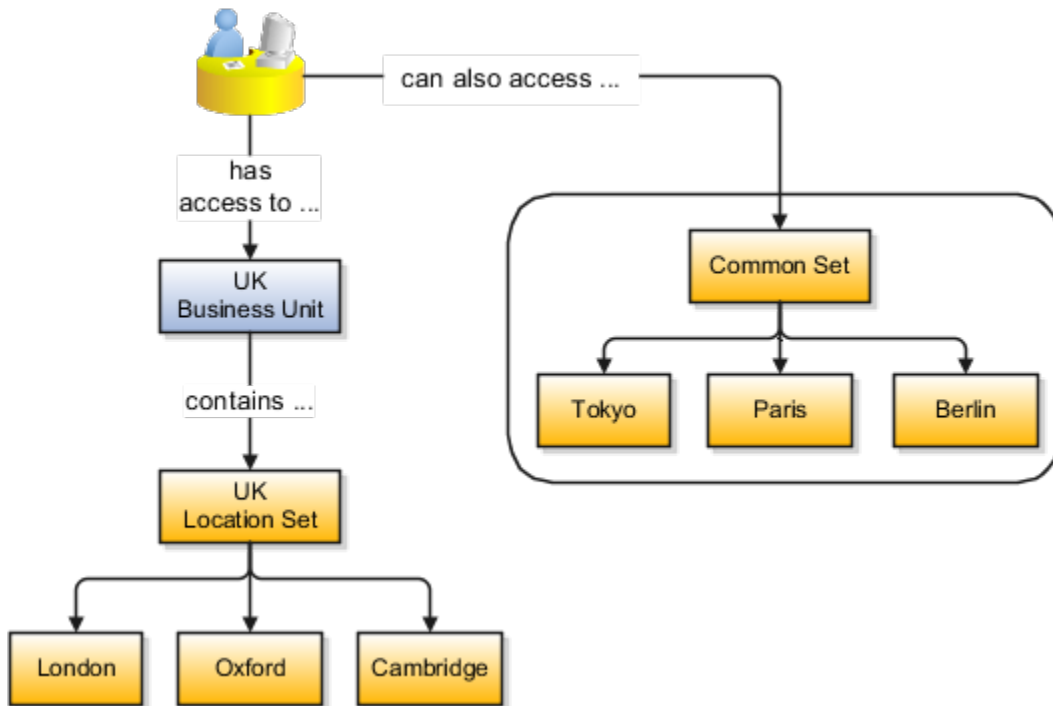
## Location Sets

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.
- You can also configure a location as an employee location on the **Location Details** page.
- 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.



## Upload 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.

## Update Location Details

If you need to update or correct the details of a location, here's how you can do that:

1. Go to **My Client Groups > Location Details**.
2. On the page, click **Show Filters**.
3. Search for the location you need to correct or update using the filters and select it.
4. On the location's details page, click **Actions** and select **Update** or **Correct**.
5. Update the details as required and click **Submit**.

### Related Topics

- [Why can't I see my location in the search results?](#)
- [What happens if I inactivate a location?](#)
- [Upload Workforce Structures Using a Spreadsheet](#)

## FAQs for 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 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.

## Geographies

### How Incentive Compensation Uses Geographies

You can use geographies as qualifiers in crediting and classification rules. They are matched to transaction attributes such as city, state, country, and postal code.

### How Geography Structure, Hierarchy, and Validation Fit Together

This topic presents the components of geographies.

The following three components are dependent on each other when defining a country:

1. Geography structure
2. Geography hierarchy
3. Geography validation

Every country must 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 Structures

The first step for defining a country is to create a geography structure in which geography types are part of the country structure, and then define 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.

**Note:** During import of geography data from any provider if one or more geography levels aren't available, n/a is substituted for those geography levels. For example, the list of values in the address UIs of accounts, contacts, suppliers, persons, and so on are displayed as n/a for such geography levels.

A geography structure is a hierarchical grouping of geography types for a country. The following table describes the geography structure for the United States.

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 highest level of the geography structure with level as 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 at a lower level to the current lowest level.

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

You can use a geography type that you create within the country structure for other country structures as well.

## Geography Hierarchy

Once the geography structure is defined, the geographies for each geography type can be added to the hierarchy. For example, in the hierarchy of 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 hierarchy is a data model that creates conceptual parent-child relationships between geographies.

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 type, geography usage, master reference geography hierarchy and user defined zones.

If you delete a geography level, all the children in that geography hierarchy are also deleted. For example, under a state you have defined zones using a range of postal codes. Later, you delete the state because you no longer support that state in your business. All the zones defined within that state are also deleted.

## How do I manage geography validation?

After defining the geography hierarchy, you need to specify the structure for the country.

You can choose which address style format 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 to include in address validation 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 validation determines the geography mapping and validation for a country's *address styles*, and the overall address 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
- Address validation
- Address validation control

## Attribute Mapping

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 address 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 doesn't 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 isn't available in the geography hierarchy, you can't create an address with a different geography value.

**Note:** Enable List of Values applies to the UI only. It doesn't apply to import, web services, nor REST APIs. For these, all of the required geography types must have a value in the request when creating or updating an address.

## 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.

## Address Validation

You must set up address validation for those geography elements that you plan to use in your application. Address validation checks whether geography elements of an address such as state, city, postal code, and soon are valid as per master geography data. Setting up validation also helps ensure that the addresses are correct and deliverable during entry. You can select states or other address elements from lists to ensure accuracy during entry. For example, when you enter a postal code, the application can validate if the postal code exists. Note that address validation isn't the same as address verification. *Address Verification* updates and enhances your address. Address verification depends upon Oracle or any third-party address verification services to perform verification.

You can specify whether a geography type will be included in address validation. For example, when the user enters a United States address using the North American 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 are provided for the address element, but the address element isn't validated.

You need to verify that the default mapping between **Geography Type** and **Map to Attribute** is valid in the Geography Mapping and Validation region and update it if required when you define geography validation.

After setting geography validation, all features that directly and indirectly depend upon geographies are impacted. For example, multiple applications such as ERP, CX, and SCM that use geographies are impacted.

Oracle recommends that you use the following valid mapping for the countries that Loqate supports:

Country Name	Country Code	Geography Type	Map to Attribute
Andorra	AD	<ul style="list-style-type: none"> <li>• Country</li> <li>• Parroquia</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Angola	AO	<ul style="list-style-type: none"> <li>• Country</li> <li>• Provincia</li> <li>• Municipio</li> <li>• Comuna</li> <li>• Localidad</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Additional address attribute 2</li> </ul>
Argentina	AR	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• Department</li> <li>• Municipality</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Australia	AU	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Austria	AT	<ul style="list-style-type: none"> <li>• Country</li> <li>• Bundesland</li> <li>• Bezirk</li> <li>• Gemeinde</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Belgium	BE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Gewest</li> <li>• Provincie</li> <li>• Gemeente</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Bolivia	BO	<ul style="list-style-type: none"> <li>• Country</li> <li>• Departamento</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>• Provincia</li> <li>• Canton</li> </ul>	<ul style="list-style-type: none"> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• City</li> </ul>
Bosnia and Herzegovina	BA	<ul style="list-style-type: none"> <li>• Country</li> <li>• District</li> <li>• Kanton</li> <li>• Opcine</li> <li>• Nasalje</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Brazil	BR	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Bulgaria	BG	<ul style="list-style-type: none"> <li>• Country</li> <li>• Oblast</li> <li>• Obshhina</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Canada	CA	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Cayman Islands	KY	<ul style="list-style-type: none"> <li>• Country</li> <li>• Island</li> <li>• District</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Chile	CL	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Provincia</li> <li>• Kommune</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
China	CN	<ul style="list-style-type: none"> <li>• Country</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> </ul>



Country Name	Country Code	Geography Type	Map to Attribute
<p><b>Note:</b> China geography structure is supported but geocoding isn't supported.</p>		<ul style="list-style-type: none"> <li>Province</li> <li>City</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>
Croatia	HR	<ul style="list-style-type: none"> <li>Country</li> <li>Zupanije</li> <li>Grad</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>
Cuba	CU	<ul style="list-style-type: none"> <li>Country</li> <li>Provincia</li> <li>Municipio</li> <li>City</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Cyprus	CY	<ul style="list-style-type: none"> <li>Country</li> <li>Periochi</li> <li>Dimos</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>
Czech Republic	CZ	<ul style="list-style-type: none"> <li>Country</li> <li>Kraj</li> <li>Okres</li> <li>Obec</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Denmark	DK	<ul style="list-style-type: none"> <li>Country</li> <li>Amt</li> <li>Settlement</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>
Dominican Republic	DO	<ul style="list-style-type: none"> <li>Country</li> <li>Provincia</li> <li>Municipio</li> <li>Town</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Ecuador	EC	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>Canton</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• City</li> <li>• Postal code</li> </ul>
Estonia	EE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Maakond</li> <li>• Vald</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Finland	FI	<ul style="list-style-type: none"> <li>• Country</li> <li>• Laani</li> <li>• Kunta</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
France	FR	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Department</li> <li>• Commune</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Germany	DE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Bundesland</li> <li>• Gemeinde</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Great Britain	GB	<ul style="list-style-type: none"> <li>• Country</li> <li>• County</li> <li>• Township</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Greece	GR	<ul style="list-style-type: none"> <li>• Country</li> <li>• Periferia</li> <li>• Nomi</li> <li>• Dimotika</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Guadalupe	GP	<ul style="list-style-type: none"> <li>• Country</li> <li>• Commune</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• City</li> <li>• Postal code</li> </ul>
Guam	GU	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>• Municipality</li> <li>• Village</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• City</li> <li>• Additional address attribute 2</li> <li>• Postal code</li> </ul>
Guernsey	GG	<ul style="list-style-type: none"> <li>• Country</li> <li>• City</li> <li>• Parishes</li> <li>• Villages</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• City</li> <li>• Additional address attribute 2</li> <li>• Additional address attribute 3</li> <li>• Postal Code</li> </ul>
Hungary	HU	<ul style="list-style-type: none"> <li>• Country</li> <li>• Megye</li> <li>• Jaras</li> <li>• Telepules</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Iceland	IS	<ul style="list-style-type: none"> <li>• Country</li> <li>• Jaras</li> <li>• Telepules</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
India	IN	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Indonesia	ID	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• Regency</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Ireland	IE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• Post County</li> <li>• Postal_Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal Code</li> </ul>
Isles of Man	IM	<ul style="list-style-type: none"> <li>• Country</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>• Locality</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• City</li> <li>• Additional address attribute 2</li> <li>• Postal code</li> </ul>
Israel	IL	<ul style="list-style-type: none"> <li>• Country</li> <li>• District</li> <li>• Subdistrict</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Italy	IT	<ul style="list-style-type: none"> <li>• Country</li> <li>• Regione</li> <li>• Provincia</li> <li>• Comune</li> <li>• Postal code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Jamaica	JM	<ul style="list-style-type: none"> <li>• Country</li> <li>• Parish</li> <li>• Settlement</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> </ul>
Japan	JP	<ul style="list-style-type: none"> <li>• Country</li> <li>• Prefecture</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Jordan	JO	<ul style="list-style-type: none"> <li>• Country</li> <li>• Muhafazat</li> <li>• Liwa</li> <li>• Tajma</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Kenya	KE	<ul style="list-style-type: none"> <li>• Country</li> <li>• County</li> <li>• Division</li> <li>• Settlement</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Additional address attribute 2</li> </ul>
Latvia	LV	<ul style="list-style-type: none"> <li>• Country</li> <li>• Rajons</li> <li>• Pilseta</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
Liechtenstein	LI	<ul style="list-style-type: none"> <li>Country</li> <li>Wahlkreis</li> <li>Gemeinde</li> <li>District</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Additional address attribute 1</li> <li>State</li> <li>City</li> <li>Postal code</li> </ul>
Lithuania	LT	<ul style="list-style-type: none"> <li>Country</li> <li>County</li> <li>Municipality</li> <li>Ward</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Luxembourg	LU	<ul style="list-style-type: none"> <li>Country</li> <li>Canton</li> <li>Commune</li> <li>Settlement</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Malaysia	MY	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>District</li> <li>Subdistrict</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Malta	MT	<ul style="list-style-type: none"> <li>Country</li> <li>Region</li> <li>Local Council</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>City</li> <li>Postal code</li> </ul>
Martinique	MQ	<ul style="list-style-type: none"> <li>Country</li> <li>Department</li> <li>Arrondissement</li> <li>Commune</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Mexico	MX	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>Municipality</li> <li>Locality</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>Additional address attribute 2</li> <li>Postal code</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
Netherlands	NL	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• Municipality</li> <li>• Town</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
New Zealand	NZ	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Town</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Norway	NO	<ul style="list-style-type: none"> <li>• Country</li> <li>• Fylke</li> <li>• Kommune</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Oman	OM	<ul style="list-style-type: none"> <li>• Country</li> <li>• Muhafazah</li> <li>• District</li> <li>• City</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> </ul>
Peru	PE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Provincia</li> <li>• Distrito</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Poland	PL	<ul style="list-style-type: none"> <li>• Country</li> <li>• Wojewodztwo</li> <li>• Powiat</li> <li>• Gmina</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Portugal	PT	<ul style="list-style-type: none"> <li>• Country</li> <li>• Distrito</li> <li>• Concelho</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Puerto Rico	PR	<ul style="list-style-type: none"> <li>• Country</li> <li>• Commonwealth</li> <li>• Municipio</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>Barrio</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>City</li> <li>Postal code</li> </ul>
Qatar	QA	<ul style="list-style-type: none"> <li>Country</li> <li>Municipality</li> <li>Zone</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>City</li> </ul>
Reunion Island	RE	<ul style="list-style-type: none"> <li>Country</li> <li>Region</li> <li>Department</li> <li>Commune</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Romania	RO	<ul style="list-style-type: none"> <li>Country</li> <li>Regiune</li> <li>Judet</li> <li>Settlement</li> <li>Comuna</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Additional address attribute 1</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Russia	RU	<ul style="list-style-type: none"> <li>Country</li> <li>Federal_District</li> <li>Federal_Subject</li> <li>Oblast</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Additional address attribute 1</li> <li>State</li> <li>City</li> <li>Postal code</li> </ul>
San Marino	SM	<ul style="list-style-type: none"> <li>Country</li> <li>Comune</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>Postal code</li> </ul>
Singapore	SG	<ul style="list-style-type: none"> <li>Country</li> <li>Region</li> <li>District</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>City</li> <li>Postal code</li> </ul>
Slovakia	SK	<ul style="list-style-type: none"> <li>Country</li> <li>Kraj</li> <li>Okres</li> <li>Obec</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
Slovenia	SI	<ul style="list-style-type: none"> <li>Country</li> <li>Regija</li> <li>Upravna Enota</li> <li>Obcina</li> <li>Settlement</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Additional address attribute 1</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
South Africa	ZA	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>District Municipality</li> <li>Local Municipality</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
South Korea	KR	<ul style="list-style-type: none"> <li>Country</li> <li>Jibang</li> <li>Siti</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>State</li> <li>City</li> <li>Postal code</li> </ul>
Spain	ES	<ul style="list-style-type: none"> <li>Country</li> <li>Autonomous Community</li> <li>Province</li> <li>City</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Additional address attribute 1</li> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>
Sri Lanka	LK	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>District</li> <li>Divisional Secretariat</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
Swaziland	SZ	<ul style="list-style-type: none"> <li>Country</li> <li>District</li> <li>Inkhundla</li> <li>Town</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>County</li> <li>City</li> <li>Postal code</li> </ul>
<p><b>Note:</b> This country maybe labeled Eswatini in Manage Territories.</p>			
Sweden	SE	<ul style="list-style-type: none"> <li>Country</li> <li>Lan</li> <li>Settlement</li> <li>Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>Country</li> <li>Province</li> <li>City</li> <li>Postal code</li> </ul>



Country Name	Country Code	Geography Type	Map to Attribute
Switzerland	CH	<ul style="list-style-type: none"> <li>• Country</li> <li>• Kanton</li> <li>• Bezirk</li> <li>• Gemeinde</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Taiwan	TW	<ul style="list-style-type: none"> <li>• Country</li> <li>• County</li> <li>• Town</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Thailand	TH	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Changwat</li> <li>• Amphoe</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• State</li> <li>• City</li> <li>• Postal code</li> </ul>
Tunisia	TN	<ul style="list-style-type: none"> <li>• Country</li> <li>• Governorate</li> <li>• Delegation</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Postal Code</li> </ul>
Turkey	TR	<ul style="list-style-type: none"> <li>• Country</li> <li>• Sehir</li> <li>• Ilce</li> <li>• Kasaba</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
United Arab Emirates	AE	<ul style="list-style-type: none"> <li>• Country</li> <li>• Emirate</li> <li>• City</li> <li>• Area</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• City</li> <li>• Additional address attribute 2</li> </ul>
United States	US	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>
Uruguay	UY	<ul style="list-style-type: none"> <li>• Country</li> <li>• Departamento</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• State</li> </ul>

Country Name	Country Code	Geography Type	Map to Attribute
		<ul style="list-style-type: none"> <li>• City</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• City</li> <li>• Postal code</li> </ul>
Vatican City	VA	<ul style="list-style-type: none"> <li>• Country</li> <li>• Municipal</li> <li>• Settlement</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Province</li> <li>• City</li> <li>• Postal code</li> </ul>
Vietnam	VN	<ul style="list-style-type: none"> <li>• Country</li> <li>• Region</li> <li>• Tihn</li> <li>• Quan</li> <li>• Thank Pho</li> <li>• Postal Code</li> </ul>	<ul style="list-style-type: none"> <li>• Country</li> <li>• Additional address attribute 1</li> <li>• Province</li> <li>• County</li> <li>• City</li> <li>• Postal code</li> </ul>

**Note:** For either the tax or address validation, don't skip any level unless you're 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 address 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 address or tax validation.

## Address Validation Control

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

These are the address 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's 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. Therefore, Geography Name Referencing is the process of validating and mapping address elements of existing location table records against master reference geographies. For example, CA value in the STATE column of the HZ\_LOCATIONS table is mapped to the master reference geography of CA (California).

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 address validation for a country, you must enable geography validation and then execute the *Validate Geographies of Addresses Against Master Geographies* task for that country. This validates all your geography elements.

#### Related Topics

- [How can I save an address that didn't pass geography validation?](#)
- [How do I validate geographies of addresses against master geographies and generate naming references?](#)
- [Setting Up Geography Validation](#)

## How do I manage Geography Structures, Hierarchies, and Validation?

You can add geography structure by first defining the geography types using the Manage Geographies task. You can then create geography hierarchy and geography validations also using the Manage Geographies task.

This example shows how you can configure the geography structure, geography types within the structure, geography hierarchy, and geography 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: <ol style="list-style-type: none"> <li>1. County</li> <li>2. Post Town</li> </ol>
What is the geography hierarchy?	Create the following hierarchy: <ol style="list-style-type: none"> <li>1. Country of United Kingdom</li> <li>2. County of Berkshire</li> <li>3. Post Town of Reading</li> </ol>

Decisions to Consider	In This Example
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, don't select Tax Validation for the geography types.

## Define the Geography Structure

You can 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 **Create and Add Geography Type** field.
7. Click **Add**.
8. Click **Save and Close**.

**Note:** You can't modify or delete a geography type.

## Define the Geography Hierarchy

You can add the geographies for the County and Post Town geography types using the geography hierarchy user interfaces to create the geography hierarchy for United Kingdom. You can also use Import Management 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**.

**Note:** If there are many child geographies for the selected parent geography, a message asking you to refine the search criteria is displayed. The child geographies are displayed after you refine the search criteria. If there are many search results, you may have to further refine the search criteria. The maximum number of child geographies that can be displayed is controlled by the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option. You can change the value of this profile option by navigating to the Setup and Maintenance work area, click the Tasks menu, and search for Manage Administrative Profile Values task. Search for the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option and change the value.

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**.

## Define the Geography Validations

You can define the geography mapping and validation for the United Kingdom default address style format to specify the geography validations for the geography types you added to United Kingdom. You can 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

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 postal 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](http://elocation.oracle.com/maps_oracle_dot_com_main.html)), which is a Geocoding service provided by Oracle.

**Note:** Geocoding for Hong Kong isn't supported.

By default, the Geocoding option is turned off in the application. You can enable the Geocoding option by going to the Setup and Maintenance work area and performing the following:

- Offering: Customer Data Management
- Functional Area: Enterprise Profile
- Task: Manage Geographies

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 using import management.

### *Related Topics*

- [Set Up Geocoding](#)
- [What are Spatial Services?](#)

## Set Up Geocoding

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

## Enable Geocoding for a Country

To enable geocoding for a country, complete these steps:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Enterprise Profile
  - o Task: Manage Geographies
2. On the Manage Geographies page, search for 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.

## Populate 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 **Tools > Scheduled Processes** work area.
2. On the Overview page, click **Actions > Schedule New Process**.
3. Click the Name list and search for Populate Location Latitude and Longitude Information, and then click **OK**.
4. Enter the parameters such as Start Date and End Date, and click **Submit**.

### Related Topics

- [Geocoding](#)
- [Populate Location Latitude and Longitude Information](#)

## How do I import geographies?

A geography, such as Tokyo or Peru, describes a boundary on the surface of the earth.

You can use the following options when importing geographies:

- Oracle-licensed geography reference data
- Import Management

**Note:** The processing time for importing geography data can vary based on several variables, such as, the volume of data to be loaded and it could take several hours to complete.

## Oracle-Licensed Geography Reference Data

You can import Oracle-licensed data from Loqate, for those countries where the data is available. For more information about the supported countries, see the List of Available Countries with Loqate Geography Reference Data topic. You can import geography data using the **Manage Geographies** task. Search for the country, and select **Import Geography**

**Data** from the **Actions** menu. If the licensed data isn't available or already set up for a particular country, then the **Import Geography Data** action is disabled.

**Note:**

- If you are licensed to use HCM Cloud Payroll for the United States, you must import your geography data from Vertex. For more information, see the United States Payroll implementation and administering guides.
- If you are licensed to use HCM Cloud Payroll for Canada, you can import your geography data from either Loqate, or your own geography data vendor. Loqate is the Oracle-licensed geography vendor across all Oracle applications, but it isn't mandatory. You may use any other geography vendor, but it must be comparable in structure by using a 2-character province code. For more information, see the Canada Payroll implementation and administering guides.
- By exporting this "Geography" data from the Oracle environment to Your environment, You agree that (a) Oracle is granting You only a restricted right to download the exported data specifically for Your use with the Oracle Fusion services, (b) this data may not be used, transferred, or uploaded for any other purposes; and (c) except for the restricted right granted in (a), all provisions of the Oracle Cloud Services Agreement (CSA) or Schedule C, as applicable to You, remain in full force and effect, including specifically section 3.4 thereof.
- Geography Round-Trip Export Import is currently not supported.

## Import Management

The Import Management process reads the data included in your XML or text file and imports the data into the application.

To access Import Management functionality, go to **Navigator > Tools > Import Management**

For more information, see the Import Your Geography Data topic.

Import Geography Data is disabled for a country if the geography data for that country isn't available from Loqate or if the geography structure or hierarchy is already defined for that country. The existing master geography hierarchy can be from Loqate or non-Loqate. For example, Pakistan isn't supported currently in the supported list of 82 countries. If you try to import geography data for Pakistan after defining geography structure or geography hierarchy for it, Pakistan would be greyed out in the import list.

### *Related Topics*

- [Overview of Implementing Customer Data Management](#)
- [Setup Data Import and Export for Oracle Accounting Hub Cloud](#)
- [Create Legal Jurisdictions, Addresses and Authorities](#)

## How do I replace the existing master geography data with revised Oracle-Licensed geography data?

You must import and set up reference geography data for the countries where you do business.

Using the Oracle-licensed geography reference data, you no longer have to source geography data from a third party. You can import Oracle-licensed data from Loqate, including the country structure and hierarchy information, either to create a new geography setup or replace your existing geography data.

All customers with the exception of United States HCM Payroll customers, can use the information in this section to replace existing geography data with Loqate geography data. You can follow these steps if you're using Nokia or any other geography data and now want to move to Loqate geography data.

Before you begin, perform the following steps:

- Backup existing geography data including customizations, if any.
- Backup territory geographies.
- Perform impact analysis by contacting the support team to identify the use of geography IDs downstream.

**Note:** Before deleting the geography data, make sure that GEOGRAPHY\_ID isn't referenced in any downstream applications such as TAX, FIN, Legal, and so on. Geography data is used across Oracle Cloud applications such as Human Capital Management, TAX, and Legal. Global Single Instance POD users share the same geography data and before deleting geography data, the geography usage POD analysis is required. The Oracle Support team can help you identify the downstream impact.

### Create an Export File of All Territories

In case you have implemented Customer Data Management along with the sales functionality, 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 for 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 territory at the highest level.
3. Click the **Actions** list, and select **Export**, and then **Export Selected Territory Hierarchy**.
4. In the Warning dialog box, click **OK**.
5. Click the **Actions** 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.



## Delete the Territory Geography Data

A territory definition has references to the territory geography data and master geography data. Territory geography data is based on the master geography data, in case you have implemented Customer Data Management along with the sales functionality, 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. In the Setup and Maintenance work area, go to the following:
  - o Offering: Sales
  - o Functional Area: Territories
  - o Task: Manage Territory Geographies
2. On the Manage Territory Geographies page, click **View All Hierarchies**.
3. Select the highest level 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 the higher nodes in the territory geography data.
7. Click **Save and Close**.

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. Therefore, although the territory geography data is deleted, the territory definitions may appear to remain valid.

## Delete the Master Geography Data

Delete the existing geography data one country at a time. We recommend that you raise a service request for assistance in deleting the geography data.

### Delete Geography Structure

If you have created a geography structure, it prevents the geography imports from working or working as desired. For example, if the geography structure exists, the Import Geography option may not be enabled for a country in Manage Geographies even if Loqate predefined geography data is available for that country and the geography hierarchy doesn't exist yet.

**Note:** If any geography hierarchy was created manually, it must be deleted first.

If the geography structure was created manually, you can follow these steps to delete it. However, we recommend that you raise a service request for assistance in deleting the geography structure.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Enterprise Profile
  - o Task: Manage Geographies

2. On 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 and click **Actions > Manage Geography Structure**.
4. In the Manage Geography Structure page, delete each level of the structure.
5. Click Save and Close.

You can now proceed to importing geography data.

**Note:** If other setup or transaction data exists that's based on the geography data, replacement procedures for that setup must also be followed.

## Import Oracle-Licensed Geography Reference Data

Use this procedure to import Loqate geography data in Manage Geographies one country at a time. If the country data you want isn't supported by Loqate geography seed data and point the Loqate supported country list here, then the Import Geography Data action is disabled.

The geography data is provided by Loqate 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 aren't responsible for and expressly disclaim all warranties of any kind with respect to third-party content and services. Oracle and its affiliates aren't 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 Oracle-licensed geography reference data.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Enterprise Profile
  - o Task: Manage Geographies
2. On 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** list, and select **Import Geography Data**.

**Note:** Import Geography Data is disabled for a country if the geography data for that country isn't available from Loqate or if the geography structure or hierarchy is already defined for that country. The existing master geography hierarchy can be from Loqate or non-Loqate.

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.

**Note:** To access the Scheduled Processes work area, you must be signed in as a user with the Employee abstract role. The initial user doesn't 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 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're using Around Me functionality in CX Sales Cloud Mobile.
- Cleansing makes it possible to validate addresses down to the street level.

Add any geography customizations.

## Run 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.

Run the GNR process in the following situations:

- When you are using geography based address validation (not third party address validation services).
- GNR data is needed for your business processes (such as ERP Tax).

**Note:** Note: You can't update existing data, such as effective start date, in the GNR process tables for the locations.

Perform the following steps to run the GNR process.

1. Navigate to **Tools > Scheduled Processes** work area.
2. On the Overview page, click **Actions > Schedule New Process**.
3. Click the **Name** list and search for **Validate Geographies of Addresses Against Master Geographies**, and then click **OK**.
4. Click **OK** in the Schedule New Process dialog box.
5. In the Process Details dialog box, enter the following details:
  - **Location Table Name:** HZ\_LOCATIONS
  - **Run Type:** ALL
  - **Usage Code:** GEOGRAPHY
6. Enter the country code in the Country Code field.
7. Click **Submit**.
8. In the Confirmation dialog box, click **OK**.
9. Click **Close**.
10. In the Scheduled Processes page, click the **Refresh** icon.
11. Verify if the status of the process has completed successfully.

Find the locations failing in Geography Name References using: <https://cloudcustomerconnect.oracle.com/posts/b1e16b06ae>. Fix Geography Name References failures by updating addresses with the latest geography data.

## Recreate and Load the Territory Geography Data

In case you have implemented Customer Data Management along with the sales functionality, 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 Import Management, see *Import Your Sales Territory Data* in the Oracle CX Understanding Import and Export Management for CX Sales and Fusion Service 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* in the Related Topics section.

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

1. In the Setup and Maintenance work area, go to the following:
  - Offering: Sales
  - Functional Area: Territories
  - Task: Enable Dimensions and Metrics
2. On the Enable Dimensions and Metrics page, click the **Actions** 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**.

## Restore 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 aren't 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.

To restore valid territory definitions using territories import:

1. Open the export file you saved in the *Creating an Export File of All Territories* step. The compressed file contains four CSV files.
2. Open **TERR\_HEADER.CSV** file.
3. Enter **REPLACE** in the Action column for all territories that are based on geography dimension.
4. Save the file in CSV format and compress it together with three other CSV files.
5. From the Territories and Quotas work area, click **View Active Territories** in the Tasks pane.
6. Click the **Actions** list, and select **Import to Proposal**, and then **Import Territories**.
7. Select the newly created compressed file and click **OK**.
8. Click the **Actions** list and select **Import to Proposal**, and then **View Import Status**.
9. Review the status of the export job and verify if it has completed successfully.
10. Click **OK**.
11. From the Tasks pane, click **Manage Territory Proposals**.

12. In the Manage Territory Proposals page, on the Current Territory Proposals table, search for the proposal with your import file name.
13. Click the import file name to open the territory proposal.
14. Click **Edit Coverage** to verify that the territory definitions are valid.
15. Verify that there are no values listed as invalid in the Selected Dimension Members section.
16. Click **Save and Close**.
17. Click **Activate**. The territory proposal of your import file is activated.

To restore valid territory definitions through manual corrections:

1. From the Territories and Quotas work area, click **Manage Territory Proposals** in the Tasks pane.
2. In the Manage Territory Proposals page, click the **Create** icon.
3. In the Create Territory Proposals dialog box, enter a name and click **Save and View**.
4. In the Territory Proposals page, add all the territories with the Geography dimension value other than the value Any to the proposal.
5. Select a territory and click **Edit Coverage**.
6. In the Edit Coverage page, select **Geography** from the Dimensions list. The invalid dimension members are displayed in the Selected Dimension Members pane.
7. 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.
8. Select one or more new geography dimension members from Available Dimension Members pane and click **Add** icon to the Selected Dimension Members pane.
9. Click the **Remove** icon to remove the invalid members from the Selected Dimension Members pane.
10. Click **Save and Close**.
11. Repeat steps 4 to 10 for all territories that were based on Geography dimension.
12. Click **Activate**. After the activation process is complete, your territory definitions are valid again and are referencing to the new geography data.

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

To run the batch assignment process for opportunities:

1. From Navigator, click **Scheduled Processes**.
2. In the Schedule Processes page, click **Schedule New Process**.
3. In the Schedule New Process dialog box, search for the **Request Revenue Territory Assignment** process and select it.
4. Click **OK**.
5. 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.
6. Enter **BindOpptyCreationDateFrom=** followed by the date.  
For example, if BindOpptyCreationDateFrom=2014-01-01, then all open opportunities which were created between 1st January 2014 till the current date, are processed.
7. Click **Submit** to schedule the process.
8. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
9. Click **Close**.
10. In the Schedule Processes page, click the **Refresh** icon.
11. 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.

To run the batch assignment process for sales accounts:

1. 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.
2. From Navigator, click **Customers**.
3. In the Customers page, click **Create Account**.
4. In the Create Account page, enter a name and address of the sales account, and select the **Address is sell to** check box.
5. Click **Save and Close**.
6. From Navigator, click **Customers**.
7. In the Search pane, search for the name of the sales account you created and select it.
8. In the section 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.

1. From Navigator, click **Scheduled Processes**.
2. In the Schedule Processes page, click **Schedule New Process**.
3. In the Schedule New Process dialog box, search for the **Request Account Assignment** process and select it.
4. Click **OK**.
5. Enter **SalesAccount\_Work\_Object** in the Work Object Code field and **SalesAccountTerritory\_Candidate\_Object** in the Candidate Object Code field.
6. Select **Territory** in the Assignment Mode list.
7. Enter **AllSalesAccountsVC** in the View Criteria Name field. This selects all sales accounts.
8. Click **Submit** to schedule the process.
9. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
10. Click **Close**.
11. In the Schedule Processes page, click the **Refresh** icon.
12. 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.

Verify that the downstream applications using geography data is working fine.

## Create Countries

This procedure lists the steps to create countries in the application.

The countries are seeded in the application. If you're unable to find a specific country in the Manage Geographies page, then you can add it to the application.

**Note:** The application provides support for Loqate geography data for countries. For countries where Loqate geography data isn't available, you can purchase the geography data from a third-party data provider and load it into the application using Import Management. For more information, see the Import Your Data chapter in the Oracle CX Understanding Import and Export Management for CX Sales and Service guide. If countries aren't 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. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Application Extensions
  - o Task: Manage Territories
2. On the Manage Territories page, click the **New** icon.
3. Enter the following details:
  - o Territory Code: Enter a unique code for the territory.
  - o Territory Name: Enter a unique name for the territory.
  - o 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. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Enterprise Profile
  - o Task: Manage Geographies
6. On the Manage Geographies page, click **Actions** > **Create Country**.
7. In the Create Country dialog box, select the name of the country and click **Save**.
8. Click **Done**.

**Note:** You can now import the geography data for the newly created country using Loqate geography data available in the application. In case geography data for your country isn't available from Loqate, you can purchase the geography data from a third-party data provider and import it using Import Management.

#### Related Topics

- [How do I replace the existing master geography data with revised Oracle-Licensed geography data?](#)

## How do I import geography data?

You can use Import Management to create Geography records. You can also add alternate name or code to existing geographies with import. For more information see Example of Importing Geography Data in the Related Topics section.

To import Geography records, perform the following tasks:

1. Map your source data to Oracle Applications Cloud object attributes.
2. Create source Comma Separated Values (CSV) file for import.
3. Create the import activity.
4. Review the import results.

## How You Map Your Source Data to Object Attributes

To import your Geography data into Oracle Applications Cloud, you must populate a .csv file with your source data and map that source data to target object attributes in Oracle Applications Cloud.

You need to do the following before creating the CSV file for data import:

- Identify how your source data attributes map to the target object attributes in Oracle Applications Cloud.
- Create Country Structure before importing Geography data. For information on how to create Country Structure, see Import Your Country Structure and Example of Importing Country Structure in Related Topics Section.
- Identify the target object attributes that are required in the CSV file for a successful import as mentioned in the table Required Attributes and Validations for the Geography Object below.

## Before You Start

You must do some basic checks before starting your import. For example, make sure that:

- You have completed all the prerequisites for importing each attribute in your source data such as creating a country structure.

## Required Attributes and Validations for the Geography Object

To import data successfully into Oracle Applications Cloud, your CSV file must include the required attributes. Ensure that you provide values for the attributes. The following table lists the required attributes for importing new Geography records, prerequisite setup tasks for the attributes, and specific validations, if any, for Geography import:

Attribute	Description	Prerequisite Setup Task/ Import Validations	Creating a Geography Record
CountryCode	The code of the country to which the geography belongs.	This is validated against the country structure to check if the structure is defined for this country.	Required
PrimaryGeographyName	The primary name of the geography.	This is validated against the name of country if geography type is 'Country' or LevelNumber is 1.	Required
RecordTypeCode	The record type code that represents the intent of the import data. The values are: <ul style="list-style-type: none"> <li>• 0 - indicates the geography that already exists in the base table.</li> <li>• 1 - indicates the intent to create a new geography.</li> <li>• 2 - indicates the intent to add an alternate identifying name or code to an existing geography.</li> </ul>	No Validation	Required



Attribute	Description	Prerequisite Setup Task/ Import Validations	Creating a Geography Record
LevelNumber	The level number of the geography in the hierarchy. For example, Country is at Level 1 and State (California) is at Level 2.	The level should exist in the country structure.	Required
SourceID	The source ID for the geography, along with the parent source ID is used to identify the geography parent and child relationship within the source file data and the interface table data.	None	Required
ParentSourceID	The parent source ID for the geography, along with the source ID is used to identify the geography's parent and child relationship with records within the source file data. This should be null for the country record, as Country is at the top of the hierarchy.	None	Required

You can view the Geography object and attributes in the Manage Import Objects page of the Import Management flow. You can find attribute information like type, length, description, and so on, on this Manage Import Objects page.

**Note:** Keep a note of the following:

- You can't update geographies via import.
- You can't add alternate names or alternate code of country via import. You can do so only via UI.
- Before adding a new alternate name, make sure that the alternate name does not exist with the same value for any other geography name.
- You can enable high-volume import for the Geography import object in the Manage Import Objects page.
- PrimaryGeographyCodeType and PrimaryGeographyCode can't be added after PrimaryGeographyName is created via import. You must create them together. Alternatively, you can add primaryGeographyCodeType and PrimaryGeographyCode from the UI after the import is complete.

## Create the Source CSV File

You include the data that you want to import into CX Sales and Fusion Service in a source CSV file.

You can use the templates available in the Import Objects UI page to create the source CSV file. To download a template:

1. Go to **Navigator > Tools > Import Management > Import Objects**.
2. Select the **Geography** object in the table and click **Download**.

You can now edit the downloaded file and provide valid values for the required attributes.

**Note:** For help in populating the CSV file and to avoid any issues in entering values, see the topic Potential Issues When Opening CSV Files With Excel in Related Topics section.

## Create the Import Activity

After you have the CSV file ready, create an import activity to import the information. To create an import activity:

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click **Create Import Activity** in the **Manage Imports** page.
3. In the **Enter Import Options** page, provide a name for the import activity, and select Geography from the **Object** drop-down list.
4. Select the CSV file in the **File Name** field, and click **Next**.
5. The source and target attributes are automatically mapped in the **Map Fields** page. Review and edit the mappings if required.
6. Check the file for unmapped columns or data format issues by clicking **Validate Data**. Click **Next**.
7. Review the import details on the **Review and Submit** page, and click **Submit** when you're ready.

## Review the Import Results

Check if your import succeeded on the **Manage Imports** page. This page shows the status of all active, completed, and unsuccessful imports. To check the status of the import activity:

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click All Imports and search for the import activity that you created earlier.
3. Check the **Status** column for the import activity. The import is successful if the status displays as **Completed**. You can drill down on the import activity to go to the **Import Status** page which provides the status details of the import activity.

**Note:** Geography names aren't translatable and are always displayed in the same language in which they were loaded irrespective of the language of the signed in user. If you need different options of display, you can use the alternative names option.

### Related Topics

- [Import Your Country Structure Data](#)
- [Potential Issues When Opening CSV Files in Excel](#)
- [Example of Importing Country Structure Data](#)
- [How do I import data?](#)
- [Example of Importing Geography Data](#)

## Example of Importing Geography Data

This example demonstrates how to import data using Import Management.

In this example, you have a source file containing geography data that you want to import into the application to make the geography data available for real time address validation and tax purposes. 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.

## Summary of the Tasks

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

1. Determine what information is in the source file.
2. Create and schedule the import activity.

## Before You Start

1. You use the country structure of a country to define which geography types are part of the country. For more information about an example of importing a country structure, see the topic "Example of Importing Country Structure Data".
2. Ensure that Source ID values are unique for each row of data within a single import.
3. 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.
4. 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.

## Determine the Information in the Source File

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. You include the data that you want to import into CX Sales and Fusion Service in a source CSV file. A sample input CSV file for country as US is shown in this table.

RecordTypeCode	PrimaryGeography	CountryCode	LevelNumber	SourceId	ParentSourceId	LanguageCode
0	United States	US	1	1	<blank>	US
1	California	US	2	11	1	US
1	San Mateo	US	3	111	11	US
1	Redwood City	US	4	1111	111	US
1	94065	US	5	11111	1111	US

Here is a sample CSV file to import geographies with alternate name and code for country India:

RecordType	PrimaryGeogr	CountryCode	LevelNumber	SourceId	ParentSourceId	IdentifierType	IdentifierSubT	IdentifierValue
0	India	IN	1	1				
1	Karnataka	IN	2	2	1			
1	Bengaluru	IN	3	3	2			

RecordType	PrimaryGeogr	CountryCode	LevelNumber	Sourceld	ParentSourcel	IdentifierType	IdentifierSubT	IdentifierValue
2	Bengaluru	IN	3	3	2	NAME	Standard_ Name	Bangalore
1	Whitefield	IN	4	4	3			
1	560066	IN	5	5	4			
2	560066	IN	5	5	4	CODE	ISO_ COUNTRY_ CODE	91

**Note:** Keep a note of the following:

- The hierarchy is modeled in the CSV file using the Sourceld and ParentSourceld. The ParentSourceld for the Country Record (level Number 1) is always null.
- If defining an alternate name (RecordTypeCode = 2) for any level below the country (LevelNumber >1), ensure that the Sourceld and ParentSourceld columns match the values for the original record respectively.
- You can't update geographies via import.
- You can't add alternate names or alternate code of country via import. You can do so only via UI.
- Before adding a new alternate name, make sure that the alternate name doesn't exist with the same value for any other geography name. You can check the existing values for alternate names in the Manage Geographies task page under Hierarchy Defined.
- You can find the list of IdentifierSubTypes in Manage Geography Lookups page in the UI.
- PrimaryGeographyCodeType and PrimaryGeographyCode can't be added after PrimaryGeographyName is created via import. (CSV) file to create the table. Alternatively, you can add PrimaryGeographyCodeType and PrimaryGeographyCode from the UI after the import is complete.

Attribute Name	Value	Description
RecordTypeCode	1	The record type code that represents the intent of the import data. The values are: <ul style="list-style-type: none"> <li>• 0 - indicates the geography that already exists in the base table.</li> <li>• 1 - indicates the intent to create a new geography.</li> <li>• 2 - indicates the intent to add an alternate identifying name or code to an existing geography.</li> </ul>

Attribute Name	Value	Description
PrimaryGeographyName	India	This is the primary geography name. This will be marked as the primary name for the Geography and also displayed in the Manage Geographies Page.
CountryCode	IN	This indicates the Country Code for the country for which you're importing data.
LevelNumber	2	The level number of the geography in the hierarchy. For example, Country is at Level 1 and State (California) is at Level 2.
SourceId	2	The source ID for the geography, along with the parent source ID is used to identify the geography parent and child relationship within the source file data and the interface table data.
ParentSourceId	1	The parent source ID for the geography, along with the source ID is used to identify the geography's parent and child relationship with records within the source file data. This should be null for the country record, as Country is at the top of the hierarchy.
IdentifierType	Name	The type of the identifier. It can be either Name or Code.
IdentifierSubtype	Standard_Name or Standard_Code	The IdentifierSubtype can be Standard_Name or Secondary_Name. The default value is Standard_Name.  The valid Sub Types for Type "CODE" are FIPS_CODE, GEO_CODE, ISO_COUNTRY_CODE, PRIMARY_CITY, or UNKNOWN
IdentifierValue	Bangalore	The value of the identifier.

You can create an import activity, enter the import details, and schedule the import.

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click **Create Import Activity** in the **Manage Imports** page.
3. In the **Enter Import Options** page, provide a name for the import activity, and select **Geography** from the Object drop-down list.

**Note:** In the **Advanced Options** section, the option **Enable High-Volume Import** is selected by default. This mode is designed to import millions of records at once.

4. Select the CSV file in the **File Name** field, and click **Next**.
5. The source and target attributes are automatically mapped in the **Map Fields** page. Review and edit the mappings if required.
6. Check the file for unmapped columns or data format issues by clicking **Validate Data**. Click **Next**.

7. Review the import details on the **Review and Submit** page, and click **Submit**.

## Import Your Country Structure Data

You can use Import Management to create Country Structure records. It is recommended you use Import Management only if you're importing high-volume third-party data.

If you're importing licensed data from one of our vendors, then you can create the country structure by navigating to **Setup and Maintenance > Manage Geographies Task** page.

To import Country Structure records, perform the following tasks:

1. Map your source data to Oracle Applications Cloud object attributes.
2. Create source Comma Separated Values (CSV) file for import.
3. Create the import activity.
4. Review the import results.

### How You Map Your Source Data to Target Object Attributes

To import your Country Structure data into Oracle Applications Cloud, you need to populate a CSV file with your source data and map that source data to target object attributes in Oracle Applications Cloud.

You need to do the following before creating the CSV file for data import:

- Identify how your source data attributes map to the target object attributes in Oracle Applications Cloud.
- Identify the target object attributes that are required in the CSV file for a successful import.

### Required Attributes and Validations for Country Structure Object

To import data successfully into Oracle Applications Cloud, your CSV file must include values for the required attributes. This table lists the required attributes for importing new Country Structure records, prerequisite setup tasks for the attributes, and specific validations, if any, for Country Structure import:

Attribute	Description	Prerequisite Setup Task/ Import Validations	Creating a Country Structure Record
CountryCode	The code for the country for which the country structure is applicable.	The GeographyType has to be "Country" and the LevelNumber has to be "1" for a country.  You can't pass different country codes when importing a record.	Yes
GeographyType	Geopolitical divisions such as Country, State, City, and so on. For example, for US the different geography types would be State, County, City, and Postal Code. For India, the different geography types would be State, District, City, and Postal Code. For Mexico, it would be State, Municipality, Locality, and Postal Code.	The country has to be present.	Yes

Attribute	Description	Prerequisite Setup Task/ Import Validations	Creating a Country Structure Record
LevelNumber	You need these to create parent-child relationships between geography types for your country. The values can be 1, 2, 3, and so on.	To define a country, you must specify the LevelNumber as 1.	Yes

You can view the Country Structure object and its attributes in the Manage Import Objects page of the Import Management flow. You can find attribute information like type, length, description, and so on, on the Manage Import Objects page. You can view the list of valid values for country codes in the UI by navigating to the Manage Geographies task and searching with % as the Country Code value. For more information on Geographies, see Overview of Geographies, Geographic Entities, and Locations in the Related Topics section.

**Note:** Note the following:

- The import job will fail if you try to load any already existing country structure. Delete the existing country structure in the UI in Manage Geographies Tasks and import again.
- You can't load additional lower geography structure levels for an existing country structure while importing geography country structure. You can add additional geography levels in the UI for an existing country structure in the Manage Geographies task page.

## Create the Source CSV File

You include the data that you want to import into Oracle Applications Cloud in a source CSV file.

You can use the templates available in the Import Objects UI page to create the source CSV file. To download a template:

1. Go to **Navigator > Tools > Import Management > Import Objects**.
2. Select the **Country Structure** object in the table and click **Download**.

You can now edit the downloaded file and provide values for the required attributes.

**Note:** For help in populating the CSV file and to avoid any issues in entering values, see the topic Potential Issues When Opening CSV Files With Excel in Related Topics section.

## Create the Import Activity

After you have the CSV file ready, create an import activity to import the information. To create an import activity:

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click **Create Import Activity** in the **Manage Imports** page.
3. In the **Enter Import Options** page, provide a name for the import activity, and select Country Structure from the **Object** drop-down list.
4. Select the CSV file in the **File Name** field, and click **Next**.
5. You would see that the source and target attributes are automatically mapped in the **Map Fields** page. Review and edit the mappings if required.
6. Click **Validate Data** to check the file for unmapped columns or data format issues. Click **Next**.
7. Review the import details on the **Review and Submit** page, and click **Submit** when you're ready.

## Review the Import Results

Check if your import succeeded on the **Manage Imports** page. This page shows the status of all active, completed, and unsuccessful imports. To check the status of the import activity:

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click All Imports and search for the import activity that you created earlier.
3. Check the **Status** column for the import activity. The import is successful if the status displays as **Completed**. You can drill down on the import activity to go to the **Import Status** page which provides the status details of the import activity. Here, you can download and review the successfully imported user data records, the mapping details used for import activity, and the data file that you provided in CSV format.

### Related Topics

- [How do I manage geography validation?](#)
- [Potential Issues When Opening CSV Files in Excel](#)
- [Overview of Geographies, Geographic Entities, and Locations](#)
- [How do I import data?](#)

## Example of Importing Country Structure Data

You use the country structure of a country to define which geography types are part of the country and how the geography types are hierarchically related within the country.

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.

To add a country structure using import management, your source file must contain information about the country to which the country structure belongs. You can view the list of valid values for country codes in the UI by navigating to the Manage Geographies task and searching with % as the Country Code value. You also need to specify the level at which the geography types need to be placed. By default, all countries are at Level 1. You create the country structure by increasing the level number as you go down the country structure. You place the geography types such as states, provinces, and so on at Level 2, districts or counties at Level 3, and so on. To add a country structure, your source file must include the values that let the import process identify the existing records.

### Sample Input CSV File

You include the data that you want to import into CX Sales and Fusion Service in a source CSV file. Here is a sample input CSV file for country as US.

CountryCode	LevelNumber	GeographyType
US	1	COUNTRY
US	2	STATE
US	3	COUNTY



CountryCode	LevelNumber	GeographyType
US	4	CITY
US	5	POSTAL CODE

Here is another input CSV file for importing the country structure for India.

CountryCode	LevelNumber	GeographyType
IN	1	COUNTRY
IN	2	STATE
IN	3	DISTRICT
IN	4	CITY
IN	5	POSTAL CODE

In case you want to import the country structure for Mexico, your input CSV file would look like this:

CountryCode	LevelNumber	GeographyType
MX	1	COUNTRY
MX	2	STATE
MX	3	MUNICIPALITY
MX	4	LOCALITY
MX	5	POSTAL CODE

In this example, we are importing the Country Structure for US. You must create a source file (CSV) file with the attributes as shown in this table and import it using Import Management.

Attribute Name	Value	Description
CountryCode	US	The code for the country for which the country structure is applicable.

Attribute Name	Value	Description
LevelNumber	1	The level number of the geography in the hierarchy. For example, Country is at Level 1 (Top level) and State (California) is at Level 2. You need these to create parent-child relationships between geography types for your country.
GeographyType	COUNTRY	Geopolitical divisions such as Country, State, City, and so on. For example, for US the different geography types would be State, County, City, and Postal Code. For India, the different geography types would be State, District, City, and Postal Code. For Mexico, it would be State, Municipality, Locality, and Postal Code.

Create an import activity to import the information. To create an import activity:

1. Go to **Navigator > Tools > Import Management > Import Queue**.
2. Click **Create Import Activity** in the **Manage Imports** page.
3. In the **Enter Import Options** page, provide a name for the import activity, and select **Country Structure** from the Object drop-down list.

**Note:** In the **Advanced Options** section, the option **Enable High-Volume Import** is selected by default. This mode is designed to import millions of records at once.

4. Select the CSV file in the **File Name** field, and click **Next**.
5. The source and target attributes are automatically mapped in the **Map Fields** page. Review and edit the mappings if required.
6. Check the file for unmapped columns or data format issues by clicking **Validate Data**. Click **Next**.
7. Review the import details on the **Review and Submit** page, and click **Submit**.

## How You Set up Address Cleansing

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 doesn't find a matching address, then an alert message is displayed.

## FAQs for GBG|Loqate Support

### How to Import Nokia Geography Data

We recommend that you use Loqate geography data. However, if you need to use Nokia data for one or more countries for business reasons you can do so.

By default, Import Geography Data task invokes Loqate geography data.

**Note:** Oracle doesn't support any Nokia geography data fixes.

Perform these steps to import Nokia geography data:

1. Set the profile value of the ORA\_HZ\_ENABLE\_DAAS\_LOQATE profile option to No in the Setup and Maintenance work area by going to the following:
  - o Offering: Sales
  - o Functional Area: Sales Foundation
  - o Task: Manage Administrator Profile Values
2. Import the Nokia geography data for a country as follows:
  - a. Navigate to the Manage Geographies task in the Setup and Maintenance work area by going to the following:
    - Offering: Sales
    - Functional Area: Sales Foundation
    - Task: Manage Geographies
  - b. On the Actions menu, Click Import Geography Data for a country.

**Note:** The Import Geography Data action is disabled for a country if the geography data for that country isn't available from Loqate or if the country data is already imported using either Loqate, Nokia, or any third party geography data.

After the geography data is loaded, the data provider name (Loqate or Nokia) is displayed in the Hierarchy Defined section in Manage Geographies.

### How many countries does Loqate support? How do I get support for any additional country?

Loqate supports 82 countries. Any additional country support beyond the 82 must be logged as an enhancement request.

To log the enhancement request, go to [Idea Lab](#).

#### Related Topics

- [How to submit an enhancement request on Idea Lab](#)

## Will I be charged for Loqate data?

There's no charge or licensing requirement for Loqate geography data.

## I am an existing customer, how will I be impacted? Can I import both Loqate and Nokia geography data?

No. You can import either Loqate or Nokia geography data, but you can't import from both providers for a single country. We recommend that you use Loqate geography data because Loqate supports 82 countries including existing 62 Nokia supported countries.

If you're already using Nokia geography data, you can select one of these two options:

- Option 1: You need not do anything and continue to use Nokia geography data. Oracle doesn't support any Nokia geography data fixes.
- Option 2: You can replace Nokia geography data with Loqate geography data. This is a manual process today. You must follow manual steps and work closely with the support team to import new Loqate geography data. For more information about this process, see [Replace Existing Master Geography Data with Revised Oracle-Licensed Geography Data](#) section in this chapter.

## How often are updates to Oracle licensed geography reference data available? How will I be informed about new countries that are supported by Oracle-licensed geography reference data?

The geography data is updated on a quarterly basis but the update of the latest geography data refresh isn't automated. You will be informed about the geography data refresh using release readiness documents.

## How is geography data updated? Are updates available for all countries at the same time?

When you import the geography data for a country for the first time you would get the latest Loqate geography data. But if your Loqate geography data is more than three months old, you have to uptake the latest Loqate geography data by following the steps in the [Replace Existing Master Geography Data with Revised Oracle-Licensed Geography Data](#) topic.

### *Related Topics*

- [How do I replace the existing master geography data with revised Oracle-Licensed geography data?](#)

## Can I import Vertex or other third-party geography data in Manage Geographies?

Yes, you can continue to import geography data of your choice. Oracle provides support for Loqate geography data out of the box.

## Can I import geography data for multiple countries in one import job?

No. You can submit only one import job for a country. After submitting the import job, you can search for a different country and submit another import job for that country. Currently, you can only search and import Loqate data for one country at a time using the [Manage Geographies](#) task in [Setup and Maintenance](#) menu.

## FAQs for Geographies

### When do I define address cleansing?

When address data entered into the application must conform to a particular format, 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're 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 can't delete the level.

For example, if a state geography has been created for the United States country geography structure, then the State level can't be deleted in the country geography structure.

### How do I add a geography to the geography hierarchy?

You can add a new geography in a geography hierarchy.

The new geography can be added under any level for an existing geography type in the country geography structure. For example, we can add a new postal code 94065 under United State, California, San Mateo, Redwood City.

1. Click **Navigator** > **My Enterprise** > **Setup and Maintenance** work area.
2. Click the Tasks menu and click Search. Search for **Manage Geographies**.
3. On the Manage Geographies page, enter US in the **Code** field. Click **Search**.
4. Click **Hierarchy Defined** for United States.

**Note:** If there are many child geographies for the selected parent geography, a message asking you to refine the search criteria is displayed. The child geographies are displayed after you refine the search criteria. If there are many search results, you may have to further refine the search criteria. The maximum number of child geographies that can be displayed is controlled by the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option. You can change the value of this profile option by navigating to the Setup and Maintenance work area, click the Tasks menu, and search for Manage Administrative Profile Values task. Search for the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option and change the value.

5. Search using State as the Geography Type and CA as the Code.
6. Drill down to San Mateo and select Redwood City.
7. Click **Actions** > **Create**.
8. Type 94065 for Name in the **Primary Name and Alternative Names** section.
9. Click **Save and Close**.
10. Click **Save and Close**.
11. Click **Done**.

## Edit a Specific Geography in the Geography Hierarchy

You can edit the following details of a geography hierarchy using the Manage Geography Hierarchy page:

- geography's date range
- primary and alternate names
- primary and alternate codes
- creating geographies within the hierarchy such as adding a postal code for a city.

1. Click **Navigator > My Enterprise > Setup and Maintenance** work area.
2. Click the Tasks menu and click Search. Search for **Manage Geographies**.
3. On the Manage Geographies page, enter US in the **Code** field. Click **Search**.
4. Click **Hierarchy Defined** for United States.

**Note:** If there are many child geographies for the selected parent geography, a message asking you to refine the search criteria is displayed. The child geographies are displayed after you refine the search criteria. If there are many search results, you may have to further refine the search criteria. The maximum number of child geographies that can be displayed is controlled by the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option. You can change the value of this profile option by navigating to the Setup and Maintenance work area, click the Tasks menu, and search for Manage Administrative Profile Values task. Search for the ORA\_HZ\_GEO\_HIERARCHY\_LIMIT profile option and change the value.

5. Search using State as the Geography Type and CA as the Code.
6. Select CA and click **Actions > Edit**.
7. (Optional) Select the row that you want to specify as the primary name under the **Primary and Alternative Names** section and click **Actions > Set Primary**.
8. (Optional) Select the row that you want to specify as the primary code under the **Primary and Alternative Codes** section and click **Actions > Set Primary**.
9. Click **Save and Close**.
10. Click **Save and Close**.
11. Click **Done**.

## How can I add a geography that's at a lower level to any geography in a geography hierarchy?

Select the geography that you want to create a geography at lower level, and then click the **Create** icon. This lets you create a geography for a geography type that's one level lower to the geography type you selected. The structure of the country's geography types are defined in the Manage Geography Structure page.

## How many levels in a geography structure can I define?

We recommend that you add up to six levels, starting with country at level 1, while defining geography structures. If you add more than six levels containing list of values or validations, then the sixth level and above may not work as expected in the Address UI of accounts, contacts, suppliers, persons, and so on.

## Why is Import Geography Data Disabled in Manage Geographies?

Import Geography Data is disabled for a country if the geography data for that country isn't available from Loqate or if the geography structure or hierarchy is already defined for that country. The existing master geography hierarchy can be from Loqate or non-Loqate geography data providers. For example, Pakistan isn't supported currently in the

supported list of 82 countries. If you try to import geography data for Pakistan after defining geography structure or geography hierarchy for it, Pakistan would be greyed out in the import list.

**Note:** If the hierarchy is defined, delete the geography hierarchy data first and then the geography structure.

## Legal Entities for Incentive Compensation

### Overview

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 Cloud 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 don't 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.

## Business Units for Incentive Compensation

### Considerations for Setting Up Business Units in Incentive Compensation

There are many factors that impact how you set up your incentive compensation business units for your global enterprise structure. These factors include incentive compensation plans, data security, incentive processing, and reporting.

#### Incentive Compensation Plans

Plan factors that impact how to best configure your business units include commonality across the organizational hierarchy as well as quantity and complexity of plans.

Examples:

- At which level do you use common incentive compensation plans: country, division, region, or global?
- Do your compensation plans use common components, expressions, and performance measures at the country, division, region, or global level, or is each plan independent?
- How many different compensation plans do you use for each business unit?
- How complex are your compensation plans?
- Are your plans similar enough that you could use personalization of incentive plan data to handle the minor variations?

You can individualize many compensation plan values for participants, which can reduce the number of plans that you actually have to create and manage. Level of complexity also affects the quantity of plans you create, and in which business units it would be most efficient to create and maintain them.

#### Data Security, Processing, and Reporting

Be sure to consider how you want to constrain data access and visibility as well as incentive processing.



### Examples:

- At what level do you want to secure data: by line of business, division, country, or globally?
- Is your processing centralized, or do individual business units or regional centers perform the analyst function? Do they only work on their participants or is work pooled?
- How do you want to report on your business units and divisions?

You can process transactions across business units and teams. Set a global operating currency and process incentive compensation in local currencies or using a global currency. You can introduce global sales teams and structures at any time, without changing your enterprise structure model.

### Related Topics

- [Example of Incentive Compensation Business Units by Division and Zones](#)
- [Example of Incentive Compensation Business Units by Region](#)
- [How You Create Direct and Rollup Credit Transactions](#)

## Example of Incentive Compensation Business Units by Division and Zones

This example shows business unit analysis as part of enterprise structure planning by division and zones.

You work for a multinational conglomerate that operates in 15 countries worldwide.

You have three processing centers:

- Asia-Pacific
- Americas
- Europe and Middle East

And you have two divisions:

- High-tech Products
- Consumer Services

High-tech Products has ten very complex compensation plans that are used globally. It creates all plans and administers quota worldwide in USD.

Consumer Services has over 100 similar simple, but slightly variant locally used compensation plans. It creates compensation plans with rate tiers and quotas in USD or EUR and pays all participants in their local currency.

There's no overlap of plans between the divisions. All employees report to in-region managers. There are no cross-region teams.

You want to segregate data for security purposes by division. Compensation analysts in different regional centers work on a 24 x 7 basis on paysheets for any participant worldwide in their assigned division. Both divisions and all business units use USD as the operating currency so that executives can easily review all performance and expenses.

## Global Enterprise Structure Model

Because you need multicurrency processing and reporting, you decide to create three separate business units.

- Set up one business unit to handle the ten complex global compensation plans for the High-Tech Products division in one place.
- Set up the other two business units to handle the two zones (USD and EUR) for the Consumer Services division, with operating currency set to USD and EUR, respectively. This setup enables you to reduce the 100 differing plans to 5 global plans with personalized weights, quotas, and rates.

The implementation of three business units:

- Meets the currency processing requirements
- Provides consistent enforcement of company policies
- Improves efficiency across the organization

### *Related Topics*

- [When do I include incentive compensation business units in, or exclude them from, the credit and rollup hierarchy?](#)

## Example of Incentive Compensation Business Units by Region

This example shows business unit analysis as part of enterprise structure planning by region.

You work for a multinational conglomerate that operates in 15 countries worldwide.

You have three processing centers:

- Asia-Pacific
- Americas
- Europe and Middle East

And you have two divisions:

- Agricultural Products
- Consumer Products

Agricultural Products has three medium-complex compensation plans that are used globally. Consumer Products has over 50 simple plans, half of which are used globally and half regionally.

There's no overlap of plans between the divisions. You use local currency to create incentive compensation plan rate tiers and quotas, as well as to pay participants.

Employees may report to managers in different regions, who receive rollup credit. Also, employees in the Agricultural Products division may belong to sales teams with members from other regions.

You want to segregate data for security purposes by region; local analysts can work on compensation for either division, but only for participants in one region. Both divisions and all business units use local currency as the operating

currency, so that executives can easily review all performance and expenses at the national level, across divisions and participants.

## Global Enterprise Structure Model

Because you have cross-region rollups and teams, you create three separate business units.

- Set up the three business units to correspond to the three processing center regions, combining operations for the Agricultural Products and Consumer Products divisions.
- For all business units, set the transaction currency to Participant home currency.
- Create and manage the three global plans for the Agricultural Products division and 25 global plans for the Consumer Products division in each of the three regional business units, as they're not too complex.

The implementation of three business units:

- Meets the currency processing requirements
- Provides consistent enforcement of company policies
- Improves efficiency across the organization

### *Related Topics*

- [What happens if I roll up incentive compensation credit to a parent?](#)



# 4 Persons for Incentive Compensation

## 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.

## Role Provisioning and Deprovisioning

You must provision roles to users. Otherwise, they have no access to data or functions and can't perform application tasks. This topic explains how role mappings control role provisioning and deprovisioning.

Use the **Manage Role Provisioning Rules** or **Manage HCM Role Provisioning Rules** task to create role mappings.

### Role Provisioning Methods

You can provision roles to users:

- Automatically
- Manually
  - Users such as line managers can provision roles manually to other users.
  - Users can request roles for themselves.

For both automatic and manual role provisioning, you create a role mapping to specify when a user becomes eligible for a role.

### Role Types

You can provision data roles, abstract roles, and job roles to users. However, for Oracle Fusion Cloud HCM users, you typically include job roles in HCM data roles and provision those data roles.

### Automatic Role Provisioning

Users acquire a role automatically when at least one of their assignments satisfies the conditions in the relevant role mapping. Provisioning occurs when you create or update worker assignments. For example, when you promote a

worker to a management position, the worker acquires the line manager role automatically if an appropriate role mapping exists. All changes to assignments cause review and update of a worker's automatically provisioned roles.

## Role Deprovisioning

Users lose automatically provisioned roles when they no longer satisfy the role-mapping conditions. For example, a line manager loses an automatically provisioned line manager role when he or she stops being a line manager. You can also manually deprovision automatically provisioned roles at any time.

Users lose manually provisioned roles automatically only when all of their work relationships are terminated. Otherwise, users keep manually provisioned roles until you deprovision them manually.

## Roles at Termination

When you terminate a work relationship, the user automatically loses all automatically provisioned roles for which he or she no longer qualifies. The user loses manually provisioned roles only if he or she has no other work relationships. Otherwise, the user keeps manually provisioned roles until you remove them manually.

The user who's terminating a work relationship specifies when the user loses roles. Deprovisioning can occur:

- On the termination date
- On the day after the termination date

If you enter a future termination date, then role deprovisioning doesn't occur until that date or the day after. The Role Requests in the Last 30 Days section on the Manage User Account page is updated only when the deprovisioning request is created. Entries remain in that section until they're processed.

Role mappings can provision roles to users automatically at termination. For example, a terminated worker could acquire the custom role Retiree at termination based on assignment status and person type values.

## Reversal of Termination

Reversing a termination removes any roles that the user acquired automatically at termination. It also provisions roles to the user as follows:

- Any manually provisioned roles that were lost automatically at termination are reinstated.
- As the autoprovisioning process runs automatically when a termination is reversed, roles are provisioned automatically as specified by current role-provisioning rules.

You must reinstate manually any roles that you removed manually, if appropriate.

## Date-Effective Changes to Assignments

Automatic role provisioning and deprovisioning are based on current data. For a future-dated transaction, such as a future promotion, role provisioning occurs on the day the changes take effect. The **Send Pending LDAP Requests** process identifies future-dated transactions and manages role provisioning and deprovisioning at the appropriate time. These role-provisioning changes take effect on the system date. Therefore, a delay of up to 24 hours may occur before users in other time zones acquire their roles.

## How Incentive Compensation Uses Resource Roles

You can use resource roles to create provisioning mappings to automatically provision incentive compensation job roles.

## Overview of Securing Incentive Compensation

Access to Incentive Compensation functionality and data is secured using role-based access control.

There are tasks that you must perform to implement these controls so that users have appropriate access to Incentive Compensation data and functions. Some of the tasks are performed only or mainly during the implementation. Most, however, can be performed at any time and as new requirements emerge.

## Incentive Compensation Work Area Duties

The security for incentive compensation aligns with the functional work areas and jobs. For example, one credit and earnings duty contains the privileges for the tasks included in the credit and earnings work area.

Here are the available security duties and privileges and their related work areas.

Security	Work Area
Incentive Compensation Plan Administrator	Plans
Incentive Compensation Credits and Earnings Duty	Credit and Earnings
Incentive Compensation Participant Assignments Duty	Participant Assignments
Incentive Compensation Participant Snapshot Management Duty	Participant Snapshot
Incentive Compensation Payment Control Duty	Payments
Incentive Compensation Payments Duty	Payments
Incentive Compensation Participant	Sales Compensation

Security	Work Area
Incentive Compensation Participant Manager	Sales Compensation
Incentive Compensation Application Administrator	Setup and Maintenance

Here are the available security assignments to roles.

Security	Role
Incentive Compensation Plan Administrator	Incentive Compensation Plan Administrator
Incentive Compensation Credits and Earnings Duty	<ul style="list-style-type: none"> <li>Incentive Compensation Plan Administrator</li> <li>Incentive Compensation Analyst</li> <li>Incentive Compensation Manager</li> </ul>
Incentive Compensation Participant Assignments Duty	<ul style="list-style-type: none"> <li>Incentive Compensation Plan Administrator</li> <li>Incentive Compensation Analyst</li> <li>Incentive Compensation Manager</li> </ul>
Incentive Compensation Participant Snapshot Management Duty	<ul style="list-style-type: none"> <li>Incentive Compensation Analyst</li> <li>Incentive Compensation Manager</li> </ul>
Incentive Compensation Payment Control Duty	Incentive Compensation Manager
Incentive Compensation Payments Duty	<ul style="list-style-type: none"> <li>Incentive Compensation Analyst</li> <li>Incentive Compensation Manager</li> </ul>
Incentive Compensation Participant	Incentive Compensation Participant
Incentive Compensation Participant Manager	Incentive Compensation Participant Manager
Incentive Compensation Application Administrator	Incentive Compensation Application Administrator



# 5 Source Systems, Data Formats, and Party Usage

## Source Systems for Incentive Compensation

### How You Set up Source Systems

This topic explains source systems and how to set up a source system.

You can set up source systems to help users to identify the source of the import data. You can specify whether the source system is a spoke system, such as a legacy system, or a purchased system, such as data from a third party provider. You can also specify what types of entities the source system contains. For example, you can specify that a source system contains customer data.

You can configure the following for a source system:

- Source system code, name, and description
- Source system type
- Enable for Items, Trading Community Members, Order Orchestration and Planning, and Assets

### Source System Code, Name, and Description

You can create a source system code to uniquely identify the source system. Source system codes are used by the application to create references between source IDs and the application database IDs.

**Note:** Ensure you update the source system code before you create the source system.

### Source System Type

You must set up a source system as either a spoke system or a purchased system.

### Enable for Items, Trading Community Members, Order Orchestration and Planning, and Assets

You can select one or more of the following entity types to import from the source system into the application database:

- Items
- Trading Community Members
- Order Orchestration and Planning
- Assets

You must enable the correct entity types because each import UI filters source systems based on their entity type. For example, if you set up a source system for Trading Community Members, Items, and Assets, then the source system can be selected as a data source only in this UI and not in different UI.

## Source System Entities

Source system entities are entities that you can import using a specified source system, such as addresses and parties.

When you import data from a source system, all the entities in the source system data are also imported. You can select multiple source references in the Manage Source System Entities task to allow multiple source system records to map to a single record.

### *Related Topics*

- [Source System Entities](#)

## FAQs for Source Systems

### What happens if I allow multiple source system references?

When you import data from a source system, you can merge multiple or duplicate source system records and create one record in the application. This is referred to as allowing multiple source system reference.

If you don't allow multiple source system references, then for every source system record, a duplicate record is created in the application.

## Data Formats for Incentive Compensation

### Data Styles and Data Formats

Data Formats help you define address formats and name formats within your organization, and assign them to specific geographies. The application uses these formats to capture and validate party name and address information.

You must set up geography data, in addition to the address formats, to use geography-based validations for addresses.

#### Data Styles

You can define new styles for name and address to categorize a name and address style formats. A Data Style, such as Mailing Address or Concatenated Name, categorizes name and address style formats. The application uses Data Styles to identify a particular manner or situation for which an entity is formatted. For example, you can configure the application to display only certain name and address styles in the user interface.

#### Data Formats

You use Data Formats to ensure party address and party name data quality. The address formats are used to present the address elements in the country specific formatting, and help users during address entry. For example, HCM uses Supplemental Tax address format and other applications such as CX Sales, Accounts Receivable, and so on use Postal address Format. However, these formats are predefined for each application, and you can't change the format. Also

note that you can't have more than one address format for a country of the same style. This An Address Format also specifies the scope of address validation. Address formats are linked to the geographic data for address verification, at the data-import level. For example, when creating or editing an address for a party, selecting a country displays the address format for that country.

The use of Name formats ensures that name components are stored in a decomposed manner. You can use Name formats to construct name representations from components in a variety of different styles. You can also store phonetic names that are required for certain geographies.

Data Formats simplify the storage of party address and party name, by storing them as components. You can use formats to validate addresses and name data, after setting up address and name format for a geography.

#### *Related Topics*

- [Types of Data Formats](#)

## Types of Data Formats

Data Formats determine how names and addresses are displayed in the application.

There are two types of data formats.

- **Address format:** Address formats specify the layout of an address, such as the components in the address and their position in the layout. For example, an address format for US postal address can include address, city, state, and postal code in that order.
- **Name format:** Name formats specify how a name is displayed in the application, based on the usage, language, and country. A name format includes name elements, their position, and formatting. You can create a name style format for either an organization name or a person name.

Name and address formats vary depending on usage, country, and language. You can create name formats and address formats, modify them, and assign them to specific locales. This lets you create data formats for various countries, languages, and usages.

Additionally, you can create variations of the formats, with each variation having its own layout. For example, an address format may have variations such as general address, rural address, and military address.

#### *Related Topics*

- [Data Styles and Data Formats](#)

## How do I create an address style format?

This example shows how to create an address style format for a specified address style.

To create an address style format:

- Specify the address style format and address style
- Create the format variation layout
- Assign a locale

In this example, we will create an address style to format Canadian postal addresses.

## Create the Address Style Format Name and Specify the Address Style

To create an address style format and specify the address style:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Customer Data Management
  - o Functional Area: Trading Community Foundation
  - o Task: Manage Address Formats
2. On the Manage Address Formats page, click **Create** from the actions menu.
3. On the Create Address Style Format page, complete the fields in the Overview section, as shown in the following table.

Field	Value
Code	CA_POSTAL_ADDR
Name	Canadian Postal Address Format
Address Style	Postal Address
Default	No

4. Click **Save**.

## Create the Format Variation Layout

To create a format variation layout:

1. In the Format section on the Create Address Style Format page, click the **Format Layout** tab.
2. In the Format Variation section, select **Add** from the Actions menu.
3. Enter a variation rank in the **Variation** field.

**Note:** You can't change the Variation Number. If you're specifying Create and Edit address forms, always use variation value as 1 irrespective of rank. If you're specifying Read Only formatted address (either single line or more than one line), always use variation with highest rank.

4. In the Format Variation Layout section, select **Add** from the Action menu.
5. Complete the fields as shown in the following table.

Field	Value
Line	1
Position	1

Field	Value
Prompt	Address line 1
Address Element	Address line 1
Required	Yes
Uppercase	No

6. Create another address line as shown in the following table.

Field	Value
Line	2
Position	2
Prompt	City
Address Element	City
Required	Yes
Uppercase	Yes

7. Click **Expand** on the City address line, then enter the value **1** in **Blank Lines Before**.
8. You can create as many address lines as you require. Click **Expand** if you want to enter blank lines and delimiters before, or after, an address line. In this section, you can also use the Attribute Transform Function to specify how the country attribute value must be displayed. The Attribute Transform Function supports two functions:
  - o `hz_format_pub.get_tl_territory_name(COUNTRY)`
  - o `hz_format_pub.get_neu_country_code(COUNTRY)`

These functions are used only in display formats or read-only formats where the address data is formatted in a single field. Examples for such formats are overview pages and multiple addresses section in a list. Let's look at these functions in detail :

- o `hz_format_pub.get_tl_territory_name(COUNTRY)`: Converts a country code of a country into its name. For example, MX is converted to Mexico. The country is displayed in the language that's set in the user

profile. If the profile value of the `ORA_HZ_INCLUDE_REGIONAL_COUNTRY` profile option is set to `yes` and the country name set in the user profile is the same as the country attribute value, then the country name is displayed. If the profile value of the `ORA_HZ_INCLUDE_REGIONAL_COUNTRY` profile option is set to `no` and the country name set in the user profile is the same as the country attribute value, the country name isn't displayed. To change the profile value, navigate to the following in the **Setup and Maintenance** work area:

- Offering: Sales
- Functional Area: Sales Foundation
- Task: Manage Administrator Profile Values
- o `hz_format_pub.get_neu_country_code(COUNTRY)`: Converts a country code for North European countries into a code that's placed before the postal code in a formatted address. For example, for France F is placed before the postal code. B is used for Belgium, D for Germany, and so on.

**Note:** For more information about territory codes and their prefix for North European postal codes, see *Seeded Address Formats for Countries* topic.

**Note:** While creating a new address style format, make sure that the transform function is present for each component as in predefined address style formats. The transform function may impact translation.

## Assign a Locale

An address style format is assigned to a geographic location. Locale provides mapping between `territory_code` and address style format.

To assign an address style format to a locale:

1. In the Format section on the Create Address Style Format page, click the **Locale Assignment** tab.
2. Select **New** from the Actions menu.
3. Select the country for the address style format. You can assign multiple countries to the format.
4. Click **Save and Close**.

### Related Topics

- [How can I create an address style format layout?](#)
- [How can I create a variation of an Address Style Format?](#)

## Create a Name Style Format

In this example, we create a name style format, define its format variation layout, and assign United States to it.

Note that the application selects a name style format to display name components based on your Locale Assignment preferences. You can set either Country or both Country and Language as locale. However, you can't set only Language as locale.

When both Country and Language are set as locale, the application displays name components based on the language settings of your current session. For example, suppose you have the following two name style codes created under the Concatenated Name format:

- Style Code 1:
  - Country: China
  - Language: Simplified Chinese
- Style Code 2:
  - Country: China
  - Language: English

When you set your country preference to China and session language to English, you get the contact name formatted with Style Code 2. However, when you set your country preference to China and session language to Simplified Chinese, you get the contact name formatted with Style Code 1.

If no locale exists for a country and language setting, the default name style code (the name style code with **Default Format for Style** option set to **Yes**) is used.

Note that the name format takes effect only when you create a new contact or when you update the name of an existing contact. The application doesn't translate contact names.

## Create the name style format

To create a name style format:

1. On the **Manage Name Formats** page, click **Create** from the Actions menu. The Create Name Style Format page is displayed.
2. In the Overview region, complete the fields as shown in the following table.

Field	Value
Code	CONCAT_NAME_US
Name	United States Concatenated Name Format
Name Style	Concatenated Name
Default Format for Style	No

**Note:** Set the **Default Format for Style** option to **Yes** to specify the name style format that you're creating as the default format for the selected name style, Concatenated format.

3. In the Format Variation region, click **Add Row** from the Actions menu. A blank row is added to the Format Variation table.
4. Enter **1** in the Variation Rank field of the blank row.

5. In the Format Variation Layout region, click **Create** from the Actions menu. A blank row is added to the Format Variation Layout table.
6. Complete the fields as shown in the following table.

Field	Value
Line	1
Position	1
Prompt	Person First Name
Name Element	First Name
Required	No
Uppercase	No

**Note:** You can create as many name parts as you require. Click **Expand** to enter blank lines and delimiters before or after a name part. In this section, you can use Attribute Transform Function to specify how the country attribute value must be displayed. Use the following one of the following functions:

- o `hz_format_pub.get_tl_territory_name(COUNTRY)`: Converts a country code of a country into its name. For example, MX is converted to Mexico. The country is displayed in the language that's set in the user profile. If the country set in the user profile is the same as the country attribute value, the country name isn't displayed.
- o `hz_format_pub.get_neu_country_code(COUNTRY)`: Converts a country code for North European countries into a code that's placed before the postal code in a formatted address. For example, for France F is placed before the postal code. B is used for Belgium, D for Germany, and so on.

For more information about territory codes and their prefix for North European postal codes, see Seeded Address Formats for Countries topic.

7. Click **Create** from the Actions menu to create another variation layout as shown in the following table.

Field	Value
Line	2



Field	Value
Position	2
Prompt	Person Last Name
Name Element	Last Name
Required	No
Uppercase	No

8. On the **Locale Assignments** tab, click **Actions** > **Create**, and complete the fields as shown in the following table.

Field	Value
Country	United States
Language	American English

**Note:** The application selects a name style format to display name components based on your Locale Assignment preferences. You can set either Country or both Country and Language as locale. However, you can't set only Language as locale. If no locale exists for a country and language setting, the default name style code (the name style code with the **Default Format for Style** option set to **Yes**) is used.

9. Click **Save and Close**.

*Related Topics*

- [How can I create a name style format layout?](#)
- [How can I create another variation of a Name Style Format?](#)

## FAQs for Data Formats

### How can I create an address style format layout?

Click **New** in the **Manage Address Formats** page and add address lines in the **Format Variation Layout** section. If you require more than one address style format layout, then you can create a format variation and add a different address format layout.

## How can I create a variation of an Address Style Format?

You can create different variations of an address style format, with each variation having its own layout.

For example, a country's postal address may have variations such as general postal address, rural address, and military address. When you create an address style format, the layout defined for the format is assigned as the default variation. Click **Add** in the Format Variation region of the Edit Address Style Format page, for the address style format, to add a variation of the Address style. For each address style format variation, you can enter a variation rank to define the priority of the variation.

## How can I create a name style format layout?

Click **New** in the Manage Name Formats page and add line entries for each part of the full name in the Format Variation Layout section, within the Create Name Style Format page. If you require more than one name style format layout, then you can create a format variation and add a different name format layout.

## How can I create another variation of a Name Style Format?

You can create different variations of a name style format, with each variation having its own layout. For example, different regions in a country may have different name style formats. Click Add in the Format Variation region in the Edit Name Style Format page, for the name style format, to add a variation of the name style. For each name style format variation, you can enter a variation rank to define the priority of the variation.

# Party Usage

## Party Usage in Incentive Compensation

When you import participants into Incentive Compensation the Incentive Compensation party usage is associated with the party records.

## How You Define Party Usage

Party usages describe how a party is used by the implementing organization. For example, a person in the business community may be a consumer or contact. You can create rules to determine how a party usage can be associated with party.

You can define the following types of rules for a party usage:

- Assignment rules
- Exclusivity rules
- Incompatibility rules
- Transition rules

## Assignment rules

Assignment rules define how the party usage can and can't be assigned to parties. You can allow unconditional party usage assignment, enable the assignment to be created manually, or be updated by an administrator.

Alternatively, you can also restrict the manual assignment and update of a party usage, which means that the party usage can only be created or updated by a business event. For example, the Customer party usage is assigned to a party when you create an account for the party.

You can also specify whether the party usage assignment can be created or updated when a relationship is assigned to a party. For example, when a contact has a relationship with an organization the party usage Organization Contact is assigned to the contact.

## Exclusivity rules

Exclusivity rules restrict party usage assignment, so that the party usage can be assigned to a party only during a specified time period. For example, you can set up an exclusivity rule that the party usage Manufacturer can be assigned to parties only between January 1 2011 and February 1 2011.

## Incompatibility rules

Incompatibility rules specify which party usages can't be assigned concurrently to a party during a specific time period. For example, an incompatibility rule can specify that the party usage Sales Account usage can't be assigned to a party with a Sales Prospect usage, during January 1 2011 and December 31 2030.

## Transition rules

Transition rules specify which party usages can transition to the party usage you're creating or editing. Once a party transitions to the current party usage, the previous party usage is set with an end date. For example, when a party with the Prospective Partner party usage is assigned the Partner party usage, the Prospective Partner usage is set with an end date.

# Party Usage Filter Rules

Party usage filter rule is a grouping of party usages and is used to search and filter parties in the user interface. In a party usage filter rule, you can specify the party usages to include and exclude in the rule.

You can also specify if the party usage assignments should be active or inactive.

For example, an Eligible Customers filter rule can include the Sales Prospect party usage, Sales Account, Legal Entity, and Customer party usages. The Eligible Customers filter rule can then be used in the user interface to view only eligible customers from the list of parties.

**Note:** You must compile a new filter rule before you can use it in the user interface.

### Related Topics

- [How can I compile a party usage filter rule?](#)

## FAQs for Party Usage

### How can I compile a party usage filter rule?

In the Party Usage Filter Rule page click Actions in the header section, and then click Compile Filter Rule.

# 6 Approval Management for Incentive Compensation

## Configure Workflow Approvals and Notifications

With approval management in BPM Worklist, you configure workflow tasks that users act on for approvals, including the notifications involved. For example, specify levels of approval needed, control approval routing, and configure email notifications.

After all assignees approve a workflow task, whatever got approved takes effect. Some tasks are just FYI, and assignees don't need to do anything. Either way, here are some examples of what you can do to configure workflow tasks, including notifications:

- Set how many levels of approval are needed for transactions over a particular amount
- Define whom the assignees would be, based on the supervisory hierarchy in Oracle Fusion Cloud HCM
- Create approval groups so that the workflow task can be assigned to the set of users in the group instead of an individual user
- Control when to send notifications to users involved with the task
- Disable or enable in-app or email notifications, or both

### Get Started

In the Offerings work area, enable the Approval Routing Administration feature at the offering level so that these setup tasks are available in the Application Extensions functional area:

- Manage Task Configurations
- Manage Approval Groups

These setup tasks take you to BPM Worklist, where you do most of the setup and configuration related to workflow. But, depending on your offering, you might use a different functional area or even another approval setup task. Some product families have pages or tools that you can use instead of, or in addition to, BPM Worklist, depending on what you want to configure.

### Manage Workflow Tasks

After users create a task, for example by submitting something for approval, you can use the Transaction Manager: Transactions page in the Transaction Console work area to keep track of the workflow task. And also to jump in when you need to, especially if something goes wrong.

For workflow data, you can use the tables that start with `FND_BPM` in the Oracle Fusion Cloud Applications Tables and Views for Common Features guide, and the Manage Tasks API in the REST API for Common Features in Oracle Fusion Cloud Applications guide. Don't query other tables or use other APIs that aren't documented.

*Related Topics*

- [Oracle Fusion Cloud Applications Tables and Views for Common Features](#)
- [REST API for Common Features in Oracle Fusion Cloud Applications](#)
- [Configure Offerings](#)
- [How do I update existing setup data?](#)

## Roles That Give Workflow Administrators Access

Workflow administrators for a specific product family need a predefined, family-specific workflow role to access tasks and manage submitted tasks for that family. To configure workflow tasks, they also need BPM Workflow System Admin Role (BPMWorkflowAdmin).

For example, administrators with the family-specific roles can do things like reassign submitted tasks, but they also need BPM Workflow System Admin Role to define approval rules. Other than the family-specific workflow roles, there's also BPM Workflow All Domains Administrator Role (BPMWorkflowAllDomainsAdmin). This gives administrators access to all product families. Assign to the administrators a role that contains the workflow roles appropriate for their needs.

## Workflow Roles

Here are the roles that give access to workflow administration.

Product Family	Role Name	Role Code
All	BPM Workflow All Domains Administrator Role	BPMWorkflowAllDomainsAdmin
All	BPM Workflow System Admin Role	BPMWorkflowAdmin
Financials	BPM Workflow Financials Administrator	BPMWorkflowFINAdmin
Higher Education	BPM Workflow Higher Education Administrator	BPMWorkflowHEDAdmin
Human Capital Management	BPM Workflow Human Capital Management	BPMWorkflowHCMAdmin
Incentive Compensation	BPM Workflow Incentive Compensation Administrator	BPMWorkflowOICAdmin
Procurement	BPM Workflow Procurement Administrator	BPMWorkflowPRCAdmin
Project Management	BPM Workflow Project Administrator	BPMWorkflowPRJAdmin
Sales	BPM Workflow Customer Relationship Management Administrator	BPMWorkflowCRMAdmin

Product Family	Role Name	Role Code
Supply Chain Management	BPM Workflow Supply Chain Administrator	BPMWorkflowSCMAdmin

## Things to Know About the Roles

Here are some things to know about how these workflow roles should be used and what the roles let administrators do.

- If your administrators manage workflow for multiple product families, you should give those users a custom role with the appropriate family-specific workflow roles added.
- If your administrators manage workflow for all product families, give them a custom role with BPM Workflow All Domains Administrator Role.

**CAUTION:** Assign BPM Workflow All Domains Administrator Role only if your administrators really do need access to workflow tasks from all product families. For access in multiple product families, but not all, use the workflow roles for the corresponding families instead.

- All administrators can see to-do tasks, no matter which role they have for workflow administration.
- Only administrators with either BPM Workflow All Domains Administrator Role or BPM Workflow System Admin Role would have Skip Current Assignment as an action to take on workflow tasks.

### Related Topics

- [Assign Roles to an Existing User](#)
- [Edit Job Role and Abstract Role](#)
- [Role Copying or Editing](#)
- [Actions and Statuses for Workflow Tasks](#)
- [Create Roles in the Security Console](#)

## Options for Configuring Approval Management in Incentive Compensation

The approval management options for the human workflow services of Oracle SOA Suite have the following default configuration options for Incentive Compensation.

Configuration Option	Default Value	Effect of Default Value
he ad hoc insertion of approvers	True	Allow the ad hoc insertion of approvers in the approval list.  Users who add approvers may also modify or remove the approvers that they add.

Configuration Option	Default Value	Effect of Default Value
Allow delegate	True	Allow approvers to delegate their approval responsibilities to other users.  One approver replaces another, but the approver list is otherwise unaltered.
Allow push back	True	An approver can push the transaction back to the previous approver, who then has a second opportunity to review the transaction.
Allow reassign	True	Any approver can reassign the approval to a different approver.  The approval list is recalculated based on the new approver.
Allow request information	True	Approvers can request more information from another approver or the person who submitted the transaction.
Allow self-approval	False	The person who submits the transaction can't approve it.
Allow withdraw	True	The requester or an administrator can withdraw a transaction while the approval process is incomplete.  Approvers who have already approved are notified of the withdrawal.  The transaction is removed from the worklists of approvers who haven't yet approved.
On error notify	Incentive Compensation Application Administrator	An incentive compensation application administrator is notified automatically when an error occurs.
Period before task expires	None	Approval tasks don't expire.
Period before task escalates	None	Approval tasks aren't escalated to other approvers.
Escalated approver	None	Approval tasks aren't escalated to other approvers.
Repeated approver frequency	Once per approval	An approver receives one notification for each transaction, even when the approver appears multiple times in the approver list.
Reevaluate approver list	True	The approver list is regenerated after every response.



Configuration Option	Default Value	Effect of Default Value
Rejection outcome	Stop all	When an approver rejects a transaction, the approval process stops and the transaction is canceled.

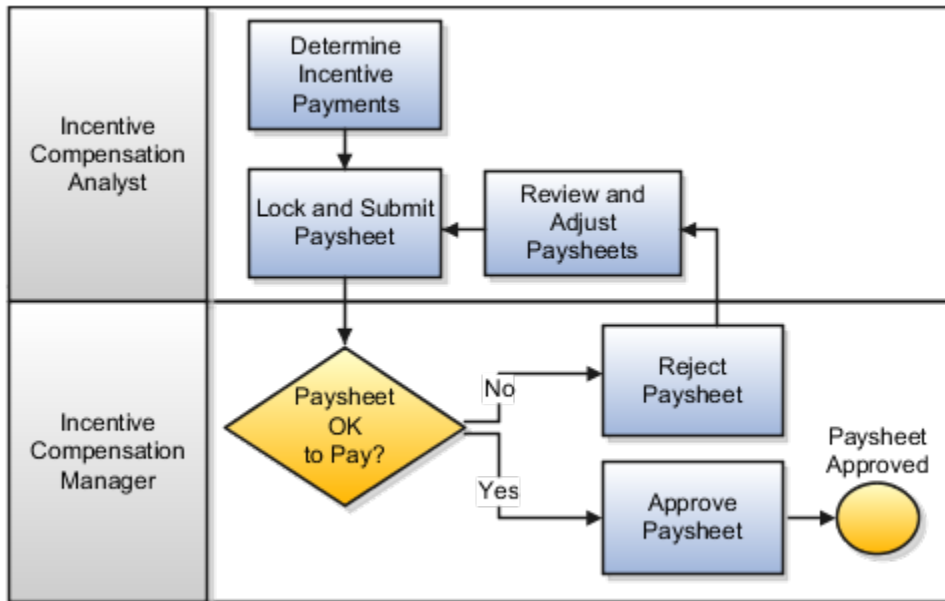
Related Topics

- Participant Paysheet Approvals

## Participant Paysheet Approvals

Do all of your participant paysheets require manager approval? Or can some be automatically approved? Here's the payment approval process.

Incentive compensation analysts create payment batches of participant paysheets. Paysheets can be automatically approved or routed for approval. Notifications tell managers and analysts what to do and what was done. Work with all your notifications in your Worklist.



### Settings for Participant Paysheet Approval

Use the Manage Task Configurations for Incentive Compensation task in the Setup and Maintenance work area to edit the approval workflow. The provided NotificationForPaysheet workflow uses the analyst hierarchy defined using the Manage Analyst Payment Approval Hierarchy task in the Participant Assignments work area. You can configure the approval flow to include the participant supervisory hierarchy. The participant hierarchy is derived from the manager assigned to the participant when importing the employee resource, entering users, or assigning managers using HCM.

## How Participant Paysheets Are Approved

Here's the process for Paysheet approval.

1. The incentive compensation analyst or manager creates a payment batch.
2. The payment process uses the associated pay group to create participant paysheets.
3. The process acts according to the settings in Payment Parameters.
  - o If the default paysheet approval status is Approved, then the process sets the paysheet status to Approved.
  - o If the paysheet amount falls between or is equal to the minimum and maximum approval amounts, then the process sets the paysheet status to Approved.
  - o The paysheet status remains Unpaid.
4. The analyst can review, lock, and submit an individual paysheet, or follow these steps to approve multiple paysheets:
  - a. Navigate to Manage Paysheets.
  - b. Search using the payment batch name and paysheet status.
  - c. Use Ctrl-A to select all paysheets, or use Ctrl-click or Shift-click to select multiple paysheets.
  - d. From the Actions menu select Lock or Submit as appropriate.

The approval process contains steps, and an approval policy for each step. The provided process includes a step to route the paysheet to compensation managers for approval. Finally, the paysheet approval requester receives an informational notification with the final outcome.

### Related Topics

- [Options for Configuring Approval Management in Incentive Compensation](#)
- [Incentive Compensation Payment Components](#)

## Overview of Configuring Paysheet Approvals

You can modify your paysheet approval processing when you need more than incentive compensation analyst and manager approval. Change the approval flow and configure rules for determining your approvers.

The approver can come from the participant's supervisor hierarchy, a group that you define, or a specific user. This feature still supports your governance requirements while giving you more flexibility and control over your paysheet approval processing.

You can configure the NotificationForPaysheet workflow to manage your approval processing. Each submitted paysheet is evaluated against your rules to determine the approval path required for that specific paysheet. You must have an analyst assigned to the participant for the approval notifications to trigger in the workflow. (Assign the analyst in Participant Details from the Participant Snapshot.)

Here are some examples of changes you can make to the approval process.

- You can configure additional steps and even exclude the compensation manager approval. For example, configure one step to get the participant manager and her manager's approval and another step for approval from an auditing group.

- Define conditional rules that use the attributes of the paysheet and participant. For example, you can define a rule that indicates paysheets over 5,000 must be routed to the participant's manager for approval.
- You can graphically design your approval policy into parallel and sequential steps.
- For steps defined for parallel approval, you can enable voting or first responder wins. The workflow tracks the responses from the approvers. For example, if you define a step where 50% of the approvers must approve, then the workflow tracks their responses to determine the outcome.
- You can define approval groups and assign the group to a step. Approval groups are typically used for subject matter experts.

#### Related Topics

- [Modify the Approval Workflow for Compensation Participant Paysheets](#)

## Examples of Paysheet Approval Workflows

Paysheets route to the compensation analyst and the participant's manager for approval. You can modify this workflow to use rules and other approvers including groups.

### Groups and Voting

Create a group of auditors. All paysheets over a certain amount go to the auditors who vote to approve. When the specified percentage of auditors votes yes, the group has approved the paysheet.

### Automatic Approval

Any paysheet with a total amount lower than a number specified in a rule is automatically approved. Any paysheet over the amount is routed for approval and notifications sent to specified approvers.

### Supervisor Hierarchy

A paysheet above a specified amount is sent to the participant's manager and then to the next higher manager for approval.

## Modify the Approval Workflow for Compensation Participant Paysheets

When your paysheet approval processing requires more than manager approval, change the approval flow. You can configure rules for determining your approvers. This feature still supports your governance requirements while giving you more flexibility and control over your paysheet approval processing.

To modify the workflow:

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Sales
  - o Functional Area: Sales Foundation
  - o Task: Manage Task Configurations for Incentive Compensation
2. In the Tasks to be Configured page, search for and select the **NotificationForPaysheet** task.
3. Click **Edit**.
4. Go to the Assignees tab.

The ready to use configuration includes two enabled service oriented architecture (SOA) participants in the paysheet approval stage. The first SOA participant represents the current paysheet approval flow using the analyst-to-compensation manager hierarchy defined using the Participant Assignment work area. The second SOA participant sends a notification to the requesting analyst.

5. Select the inactive SOA label participant to enable and edit an additional parallel approval flow.
6. A placeholder rule is provided. Click **Edit** to create your own rules. The rule set and rule names must start with a letter and contain only letters and numbers. Delete the placeholder rule.

**Note:** You can define a rule which routes the paysheet to an approval group. You define approval groups using the Manage Approval Groups task in the Setup and Maintenance work area.

7. For numeric values, you must convert them from strings back to values. To do so, use `Double.valueOf` followed by the value itself or field name in parentheses. For example, to include the number 1000 in a rule, enter `Double.valueOf("1000")`.
8. When the rule result is true, you can, for example, add supervisory approvals for the then statement.
9. Click **Validate** and make sure your rules have no errors.
10. Click **Go back to Assignees**.
11. In the Assignees page, click **Advanced**.
12. To enable the SOA participant, deselect the **Ignore Participant** indicator.

## Adding Supervisory Hierarchy Approvers

To add supervisory approvers:

1. For a rule that's true, go to the THEN region.
2. Set the number of levels in the participant's supervisory hierarchy required to approve.
3. Click the icon next to **Starting Participant**.
4. Select the **Manager** option.
5. Click the icon next to **Reference User**.
6. Expand **NotificationForPaysheetPayloadType**.
7. Expand **PaysheetdetailInfo**.
8. Select **participantUserName**.
9. Click the icon next to **Top Participant**.
10. Select **Get User**.
11. In the **Reference User** field, type the topmost manager's sign-in user name in quotes.
12. Click **OK**.

## Share Attachments and Comments

Make this change if you want comments and attachments to be available in each notification, including the final notification send to the originating user.

1. In the Tasks to be Configured page, search for and select the **NotificationForPaysheet** task.
2. Click **Edit**.
3. Go to the Assignees tab.
4. Click the **Edit** icon between Stage One and Participant Two.
5. Select **Share attachments and comments**.
6. Save and Commit task.



# 7 Help Configuration

## Set Up Help

You don't have to set anything up for help to work. But you can do optional setup, for example to give people access to add help content. First enable help features, then perform tasks in the Application Extensions functional area.

### Enable Features

In the Offerings work area, review these features at the offering level.

- **Local Installation of Help:** Make sure to leave this enabled.
- **Access to Internet-Based Help Features:** This feature isn't used, so it doesn't matter if you enable it or not.
- **Help Content Management:** Enable this feature if you want some people to be able to add company-specific help to help windows or the Getting Started work area.
- **Security for Added Help:** Enable this feature if you want certain help to be available only to a restricted set of user roles.

**CAUTION:** Enable this feature only if you have this requirement, because the feature can affect performance.

#### *Related Topics*

- [Hide or Show Help Icons](#)
- [Give People Access to Create and Edit Help](#)
- [Configure Offerings](#)
- [How You Manage Different Types of Help](#)
- [Create Groups to Limit Access to Added Help](#)

## Hide or Show Help Icons

By default, help icons that open help windows are visible. You can control whether users see the icons every time they sign in, on any page with help icons. You can disable or enable help icons by default, for everyone.

1. In the Setup and Maintenance work area, go to the **Set Help Options** task in the Application Extensions functional area.
2. On the Set Help Options page, deselect or select the **Show help icons by default** check box. You just need to do this for one offering, and the setting applies to everyone.
3. Sign out and sign back in to see your change take effect. The same goes for any user next time they sign in.

To show or hide the icons in a specific user session, people can still click their user image or name in the global header and select **Show Help Icons** or **Hide Help Icons**.

**Note:** What we are talking about here affects only help windows, not help text that appears when you hover over or click certain UI elements on the page. To edit or delete UI element help text, use Page Composer or other tools.

#### Related Topics

- [How do I update existing setup data?](#)
- [Manage Help for Fields and Other UI Elements](#)

## Give People Access to Create and Edit Help

If you enabled the Help Content Management feature, check who has the Manage Help Content (ATK\_CUSTOMIZE\_HELP\_TOPICS\_PRIV) privilege. Here's what these users can do:

- Add help in any help window, and also edit and manage the help that anyone added.
- Edit existing pages in the Getting Started work area and also add new pages.

Your security administrator can assign custom job roles with this privilege to users. The **Assign Help Text Administration Duty** task is a reminder for you to follow up with your security administrator. Make sure that people who want to create and edit help have the access to do so.

#### Related Topics

- [How You Manage Different Types of Help](#)

## Create Groups to Limit Access to Added Help

In this example, you want to add company policies as help in a help window. But only human resources (HR) specialists should be able to see those policies. You can use a help security group to limit access like this.

Let's look at the steps to create a help security group that includes only a custom job role for HR specialists. You can then secure your company policies with this help security group so that only people with that job role can see the help.

### Before You Start

In the Offerings work area, make sure that these features are enabled at the offering level:

- Local Installation of Help
- Help Content Management
- Security for Added Help

Ask your security administrator for the name of the custom job role granted to HR specialists in your company.

### Create the Help Security Group

1. In the Setup and Maintenance work area, go to the **Manage Help Security Groups** task in the Application Extensions functional area.



2. On the Manage Help Security Groups page, add a new row.
3. Enter these values, but leave the start and end dates blank.

Field	Value
Help Security Group	HR
Display Name	HR Only
Description	Viewing by HR specialists only

4. Click **Save**.
5. With your new help security group selected, go to the Associated Roles section and add a new row.
6. Select the custom job role for HR specialists as the role name.
7. Click **Save and Close**.

*Related Topics*

- [Set Up Help](#)
- [Configure Offerings](#)
- [How do I update existing setup data?](#)
- [Add Your Content to a Help Window](#)
- [Create and Edit Added Help](#)



# 8 Lookups

## Overview of Lookups

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

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

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

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

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

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

When managing lookups, you need to understand the following.

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

## Using Lookups in Applications

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

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

## Configuration Level

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

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

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

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

Predefined data means LAST\_UPDATED\_BY = SEED\_DATA\_FROM\_APPLICATION.

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

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

## Access to the REST Resources

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

- standardLookupsLOV
- commonLookupsLOV

- setEnabledLookupsLOV
- genericLookupsLOV

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

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

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

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

## Standard, Common, and Set-Enabled Lookups

The following table shows the available types of lookups.

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

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

## Accessing Lookups

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

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

## Enabling Lookups

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

Enable lookups based on the following.

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

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

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

## Translating Lookups

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

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

## Deleting Lookup Types and Lookup Codes

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

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

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

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

- Certain lookup types and codes can't be deleted, for example, predefined lookup types and codes can't be deleted.
- You can't delete lookup codes in bulk. Instead, you can delete an entire lookup type.

*Related Topics*

- [What's the difference between a lookup type and a value set?](#)
- [How can I access predefined lookups?](#)
- [Example of a Set-Enabled Lookup](#)
- [Example of a Standard Lookup](#)
- [Enter or Edit Translated Text](#)
- [Create Roles in the Security Console](#)

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

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

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

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

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

Area of Difference	Lookup Type	Value Set

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

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



# 9 Profile Options

## Overview of Profile Options

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, go to these tasks:

- Manage Profile Options
- Manage Profile Categories
- Manage Administrator Profile Values

This table explains what each task is used for.

Task	Purpose
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.

### Related Topics

- [Set Profile Option Values](#)
- [How can I access predefined profile options?](#)
- [Create and Edit Profile Options](#)
- [Profile Categories](#)

## Set Profile Option Values

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, go to the profile option task that correlates to the product or functionality of the profile option you want to set. If needed, use the **Manage Administrator Profile Values** task, which provides access to all profile options.
2. Search for and select the profile option.
3. In the Profile Values section, select or enter a value in the **Profile Value** column for any default row with a predefined Site level.
4. If there isn't any row, or if you need more rows, click the **New** icon.
  - o 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**. Otherwise, select **User**.

**Note:**

- Don't select **Site** if a row for the Site level already exists. There can only be one row for the Site level, but you can have multiple rows for the User level.
- The **Product** level is deprecated and can no longer be used. However, it might be visible in the list to support legacy profile values.

- o User Name: If you select **User** as the profile level, select the user name and specify the associated profile value.
  - o Profile Value: Select or enter the value corresponding to the selected profile level. For an existing entry, you can modify only the profile value.
5. Click **Save and Close**. Changes in the profile values affect users the next time they sign in.

## Incentive Compensation Profile Options

This topic describes profile options for incentive compensation.

Compensation managers can search for participants while adding paysheets to a payment batch. This profile option controls whether or not managers can search by role. A search by role can find several paysheets for one participant if the participant has several roles. When the profile is set to no, the search finds one participant per search and the role is hidden.

Profile Option	Name	Description	Default Setting
ORA_CN_SRCH_PARTIC_BY_ROLE	Search Participant by Role	Use role as a participant search criterion in the Payments work area. Set to No to remove Role as a searchable field and in the search results. Set to Yes to enable searching by role.	No

These profile options are set for you to batch credits for optimum processing time for calculation. You can make changes to these profile options.

Profile Option	Name	Description	Default Setting
ORA_CN_CNT_CRDTS	Count Credits for All Participants During Calculation	If set to Yes, then count the credits for each participant included in the calculation run. If set to No, then count credits for the participant with more compensation plans assigned in the calculation date range.	Yes
ORA_CN_CALC_PCT_USG	Percentage of Total Number of Parallel Processes for Calculation	Specify the percentage of total allowable parallel processes that can be used for calculation.	80
ORA_CN_MIN_CRDTS	Minimum Number of Credits for Each Batch	Specify the minimum number of credits to be included in each calculation batch.	10,000
ORA_CN_MAX_CRDTS	Maximum Number of Credits for Each Batch	Specify the maximum number of credits to be included in each calculation batch.	1,000,000
ORA_CN_PCT_USG	Percentage of Total Number of Parallel Processes for Crediting, Classification, or Rollup	Specify the percentage of your total allowable parallel processes to use for crediting, classification, or rollup.	80
ORA_CN_CCR_MIN_RECS	Minimum Number of Records for Each Batch	Specify the minimum number of records to be included in each crediting, classification, or rollup batch. The batching logic calculates the number of records per batch based on the number of records being processed and the number of processes allowed. If this is less than the value mentioned in this profile option, it will use the value mentioned in this profile option, else it will disregard it.	10000
ORA_CN_CCR_MAX_RECS	Maximum Number of Records for Each Batch	Specify the maximum number of records to be included in each crediting, classification, or rollup batch. The batching logic calculates the number of records per batch based on the number of records being processed and the number of processes allowed. If this is more than the value mentioned in this profile option, it will use the value mentioned in this profile option, else it will disregard it.	1000000

This profile option controls the number of batches used by the Revert Transactions process. You can change the profile value. If you leave it set to 0, the Revert Transactions process determines the number of batches dynamically based on the volume of data for that specific run and the available workers in the environment. This is the recommended setting, but you can set the number of batches.

Profile Name	User Profile Name	Description	Default Value
ORA_CN_BATCHES_REVERT	Number of Batches for Revert Transactions	Fixed number of batches to be used by the Revert Transactions process.	0

This profile option can be set for troubleshooting, but should be turned off again when you complete your analysis.

Profile Option	Name	Description	Default Setting
CN_DEBUG	Enable Debug Mode	Set to yes to write errors to the CN_PROCESS_AUDIT_LINES table for troubleshooting.	No

This profile option applies if you create credits manually using the UI or through import. It doesn't apply to transaction credits created during the crediting process from imported transactions. The profile applies if you use the direct credit rule hierarchy for roll up processing. Change this profile option to No if you don't want the roll up process to create rollup (also called indirect) credits from the credits you created or imported.

Profile Option	Name	Description	Default Setting
ORA_CN_ENABLE_CREDIT_ROLLUP	Credit Hierarchy- Based Roll Up for Manual and Imported Credits Enabled	Enable indirect crediting for manually entered and imported credits when using the direct credit rule hierarchy for roll up.	Yes

The participant detail import allows bulk import of participant detail records. Participant detail records serve a number of functions. One such function is as the reference point calculation uses to determine a participant's currency. Another validation ensures that whenever a participant is assigned to a compensation plan, a corresponding participant detail record exists that covers the full date range of the plan assignment. Validations also ensure that records are contiguous and don't overlap. If this profile is set to no, validations are conducted at the row level, and the file import automatically creates records to fill gaps in effective dates. Corrections can then be made in the UI where all changes are validated as a whole. Setting this profile to yes changes the run mode so that validations are done at a file level. You can correct multiple records using the import. Automatic gap rows aren't created and instead rows are ignored and a warning given for date range issues.

Profile Option	Name	Description	Default Setting
ORA_CN_SRP_DTLS_MULT_VLD	Enable Multiple Participant Detail Record Validation for Participant Detail File Import	If set to Yes, participant detail import validates records based on all file rows and won't create rows to fill date range gaps. If set to No, records are validated individually.	No

This profile option Sets the decimal precision used for calculating split percentages from credit amounts.

Profile Option	Name	Description	Default Setting
ORA_CN_SPLITPCT_PRECISION	Precision Used for Split Percentage	Change the default setting if you need a more precise number of decimal places for calculating splits for credits.	3

## How can I access predefined profile options?

Search for predefined profile options using the Manage Profile Options task.

1. In the Setup and Maintenance work area, go to the **Manage Profile Options** task.
2. On the page, enter any of the search parameters and click **Search**. Search functionality is case-sensitive.

**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. In the results, click a profile option to view its details.



# 10 Flexfields

## Flexfield Components

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.

**Note:** You can translate all these flexfield components to the preferred languages without changing the language session of the application. To specify the translations in all the enabled language rows, use the Translation Editor option on the respective edit pages. Once the updates are made, users can view the translated text for the specific flexfield components.

### Related Topics

- [How Flexfields Work with Oracle Application Cloud Architecture](#)
- [Overview of Value Sets](#)
- [Enter or Edit Translated Text](#)

## Flexfield Modification Using Page Composer

You can use Page Composer to modify flexfields specific to a page.

### Extensible Flexfield Modification

In Page Composer, open the page with the flexfield you want to modify. By default, you get the Design view to modify pages. But for this page, you must use the Source view. Set the **Source View for Page Composer Enabled** profile option (FND\_PAGE\_COMPOSER\_SOURCE\_VIEW) to **Yes** so that the View menu is available for you to switch between the two views. You can find the profile option in the **Manage Administrator Profile Values** task in the Setup and Maintenance work area.

After you switch to Source view, look for a region that's bound to an `EffContextsPageContainer` task flow. You can find all attributes and contexts of the extensible flexfield in this task flow. To view the flexfield code and identifying information, open the properties panel for the region. To modify any component within the region, select the desired tag and click **Edit**.

### Descriptive Flexfield Modification

In Page Composer, open the page with the flexfield you want to modify. Set the **Source View for Page Composer Enabled** profile option (FND\_PAGE\_COMPOSER\_SOURCE\_VIEW) to **Yes** so that the View menu is available for you to switch between the two views. You can find the profile option in the **Manage Administrator Profile Values** task in the Setup and Maintenance work area.

After you switch to Source view, look for the `<descriptiveFlexfield>` element of that flexfield. Open the properties panel for this element to view the flexfield code and to identify the information. Within the properties panel, you might modify properties for the global, context, and context-sensitive segments or re-order the global segments on the page.



Property	Description
Read-only	Indicates whether the flexfield is rendered as read-only. You can set the value to <b>True</b> or <b>False</b> or an <b>EL expression</b> .
Auto Submit	Indicates whether the component submits automatically when users change the segment's value. You can set the value to <b>True</b> or <b>False</b> or an <b>EL expression</b> .
Rendered	Indicates whether the flexfield is rendered on the page. You can set the value to <b>True</b> or <b>False</b> or an <b>EL expression</b> . If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.
Required	Indicates whether users must enter some data for the component before saving the page. You can set the value to <b>True</b> or <b>False</b> or <b>EL expression</b> . If a value for this property is explicitly set within the descriptive flexfields metadata, it's shown as read-only. Users can't override the metadata settings using Page Composer.
Inline Style	The inline style of the component. You can use the inline style property to set individual properties, such as background color, font style, or padding.
Style Class	The style class of the flexfield. You can use style class to group a set of inline styles.
Mode	The UI mode of the descriptive flexfield component. You can use this property to render all the segments or just some of them. You can select any one of these values: <ul style="list-style-type: none"> <li>• <b>No value:</b> Renders all descriptive flexfield segments. By default, all descriptive flexfield segments are rendered.</li> <li>• <b>global:</b> Renders only the global segments of the flexfield. You can use this value for a descriptive flexfield inside a table column to generate sub-columns for the global segments.</li> <li>• <b>contextSensitive:</b> Renders only the context-sensitive segments of the flexfield (including the context segment). You can use this value for a descriptive flexfield inside a table detail region to render the context values.</li> </ul>
ShortDesc	A text that appears when a user hovers over an element.
Label	The display text for the component. For example, the field prompt or the single prompt for a group of check boxes.
Columns	The width of the control in terms of the default font size of the browser. You can set this property with a literal value or an EL expression.

**Note:** Flexfield segments can't be edited using their individual component elements. They can only be edited from the properties panel of the `<descriptiveFlexfield>` element they belong to. To find these components, open the properties panel of the descriptive flexfield, switch to the relevant tab, and search using the unique identifying information. For example, to find a context sensitive segment, open the properties panel for the flexfield and go to the Flexfield Context Segments tab. Search for the segment using its Context Value and Segment Code.

*Related Topics*

- [Set Profile Option Values](#)
- [Flexfields at Runtime](#)

## Flexfield Management

### Flexfield Segment Properties

Independent of the value set assigned to a segment, segments may have properties that affect how they're 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.
Read only	Whether the field should display as read-only, not editable text.

Property	Description
Description help text	<p>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.</p> <p>If description help text is specified, a Help icon button is displayed next to the field in the application. The description help text is displayed when the user hovers over the Help icon button.</p>
Instruction help text	<p>The field-level instruction help text to display for the field.</p> <p>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.</p>

## 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's lesser than that of the high value segment.
- Non-range validated segments can exist between a range validated pair, but range validated pairs can't 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 must match a specified format or be restricted to a list of values. You can use a value set or a Groovy validator 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.

You can also use Groovy validation to set additional restrictions or requirements for what values are allowed for certain attributes of business objects. This is useful when you need to use the same value set to validate multiple segments, but the exact validation requirement changes with each case. These validators can be defined at the global segment level, or at the context level, based on your business needs. They have a validator code, validation expression, error message, and description. After adding a new validator, click the **Groovy Expression Builder** icon to open the expression builder window where you define your validation expression. Groovy validation is done when a user tries to save their values to an attribute that has a Groovy validator. If the value for this attribute fails validation against the Groovy expression, the text defined in the **Error Message** column is displayed as an error message.

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

- [Considerations for Managing Extensible Flexfields](#)

## How Flexfield Segments are Rendered on Pages

Flexfield segments appear on pages as attributes of business objects. When you create or edit flexfield segments, the value you enter for the display type determines how the segment appears on a page.

### How Display Type Values Appear

The series of figures (A to L) represent how the display types render on the UI. Each display type screenshot is assigned an alphabetic character that maps to the display type and its description in the table.

A. Check Box

Display next notification after my response

B. Drop-down List

Sales Region

- West
- Northwest
- West
- Southwest
- North
- Central
- South
- Northeast
- East
- Southeast

C. List of Values

My Airport Codes

- HNL
- HNL Honolulu, HI
- SAN San Diego, CA
- SFO San Francisco, CA
- SJC San Jose, CA
- LAX Los Angeles, CA
- NYC New York, NY - All airports
- BOS Boston, MA
- PDX Portland, OR
- Search...

D. Pop-up List of Values

Advanced

Search

Value

Value

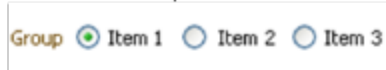
OK Cancel

E. Search Enabled List of Values

Location

Search

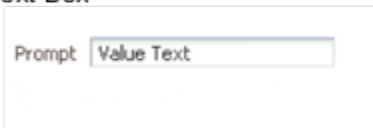
### F. Radio Button Group



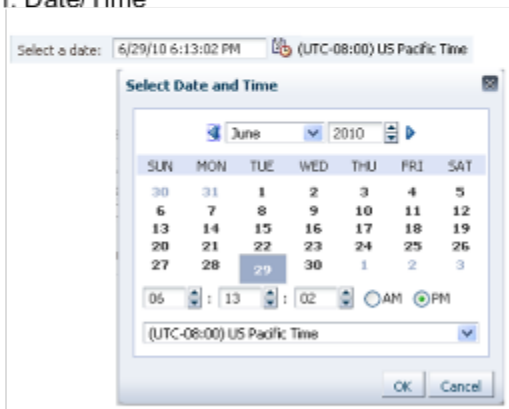
### G. Text Area



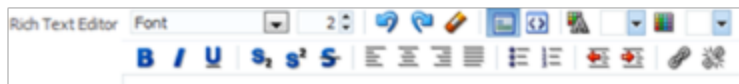
### H. Text Box



### I. Date/Time



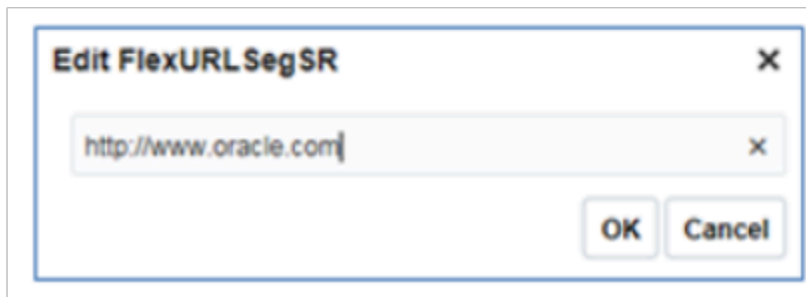
### J. Rich Text Editor



K. Color



L. Static URL



The table describes each display type:

Figure Reference	Display Type	Description
A	Check Box	The field appears as a check box. If you select the check box, the checked value is used. Otherwise, the deselected value is used.
B	Drop-down List	The field appears as a list of values from which you can select. It supports a smaller number of values.
C	List of Values	The field appears as a list of values from which you can select.

Figure Reference	Display Type	Description
D	Pop-up List of Values	The field appears as a list of values from which you can select. It supports large volumes of values.
E	Search Enabled List of Values	The field appears as a text field with a <b>Search</b> icon. You can type a value in the text field. You can also click the Search icon that opens another window for searching.
F	Radio Button Group	The field appears as a set of radio buttons. You can click a button to select an option. When you select an option, previously selected option is automatically deselected.
G	Text Area	The field appears as a text area where you can enter multiple lines of text. The display width and height specify the visible width and number of lines in the text area.
H	Text Box	The field appears as a text field where you can enter a single line of text. The display width controls the width of the text box.
I	Date Time	The field enables you to enter a date if the data type is Date. You can enter a date and time if the data type is Date Time. You can select the date in a calendar. If the data type is Date Time, you can also specify the hour, minutes, seconds, AM or PM, and the time zone.
J	Rich Text Editor	The field appears as a text area where you 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.  <b>Note:</b> This display type is available for extensible flexfields only.
K	Color	The field displays a color palette. You can select a color and assign it to the segment. You can select the display type only if the value set for the segment is set to ORA_FND_COLOR_#RRGGBB.
L	Static URL	The field appears as a text field where you can enter a fixed URL that opens the web page when clicked.



Figure Reference	Display Type	Description
		<p><b>Note:</b> The length of the URL must not exceed 255 characters.</p>

**Note:** If you select the display type as Hidden, the field isn't displayed.

## How Flexfields and Value Sets 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 user-defined attributes to be captured on the value set values 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

- [Overview of Flexfield Deployment](#)
- [How Flexfields Work with Oracle Application Cloud Architecture](#)
- [Validation Type Options for Value Sets](#)

## Default Segment Values

To populate a flexfield segment with a default value when a row is created, specify a default type of constant, parameter, or Groovy, and a default value or expression.

**Note:** Default values for global, context, and context-sensitive segments are shown only when a descriptive flexfield row is created. Also, when a context segment value is changed on a UI that renders new context-sensitive segments, these segments display default values for both new and existing rows.

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 setting a default value or deriving a default value from a parameter, only those attributes designated by development as parameters are available for selection. Different combinations of making the segments read only or editable in combination with the default or derivation value or both, have different effects.

If your segment's default type is Groovy, you can set the Groovy expression you need using the expression builder. To open the expression builder, select **Groovy Expression** as your **Default Type** and click the **Groovy Expression Builder** icon. But you should know that Groovy defaulting doesn't support derivation when a dependent parameter changes. The expression is evaluated only at segment creation.

**Note:** New usages of Groovy default values and validators in flexfields are deprecated because they won't be automatically upgraded in future releases. However, flexfields already using Groovy will continue to work. If you want to add Groovy expression to new flexfields, you must set the **Flexfield Groovy Usage Support Restricted** (ORA\_FND\_FLEX\_GROOVY\_RESTRICTED) profile option to **N**.

The following table maps these different combinations. Initial action corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it can't 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 action	Action 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.
Groovy Expression	Yes	N/A	The default value of the segment is determined by evaluating the groovy expression.	Groovy expressions are evaluated only at segment creation. They're not evaluated when a dependent parameter is modified.
SQL	Yes	No	The default segment value is the value returned by executing SQL statement	N/A
SQL	Yes	Yes	The default segment value is the value returned by executing SQL statement	The changed parameter derivation value updates segment value

**Note:** For Descriptive Flexfield, only the `PARAMETER` bind variable is supported as the default type in a SQL statement in the specified format: `#{PARAMETER.<PARAMETER_NAME>}` Other bind variables, such as `SEGMENT`, `CONTEXT`, and `VALUESET` aren't supported in a SQL statement. Also, the default type in a SQL statement is evaluated only when you create a segment. They aren't evaluated when a dependent parameter is modified.

#### Related Topics

- [How can I set a default value for a flexfield segment?](#)
- [Groovy Scripting Reference](#)

## FAQs for Flexfield Management

### How can I optimize incentive compensation performance while using attributes?

The first 15 incentive compensation transaction attributes in the CN\_TP\_EARNINGS\_ALL table always match exactly the first 15 incentive compensation transaction attributes in the CN\_TP\_TRANSACTIONS\_ALL table. You can optimize performance by populating the first 15 flexfields with values most frequently used in calculation expressions.

#### Related Topics

- [How can I optimize throughput for incentive compensation batch processing?](#)

### Why did my flexfield changes not appear in the 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 to view flexfield definition changes reflected in the application user interface page.

#### Related Topics

- [How Flexfield Deployment Status is Calculated](#)

## Value Sets

### Considerations for Planning Value Sets

The value sets you create and configure depend on the valid values of the business object attributes that use the value sets. When creating value sets, you first provide a name and description, and then define the valid values.

The following aspects are important in planning value sets:

- List of values
- Plain text
- 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
- User-defined list. Also include a sub list.
- Dependent user-defined 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 user-defined 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 comprise 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're 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 applications are running in different locales, you might need to provide different translations for the values and descriptions.

## Plain Text

Use a format-only value set when you want to allow 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 align the text to either side, 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 text alignment and zero-filling of entered numbers (affects values that include only the digits 0-9).

**Note:** You can't 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 can't 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 can't edit the data security resource name after you save your changes.

### Related Topics

- [How Flexfields and Value Sets Work Together](#)
- [Default Segment Values](#)
- [What's the difference between a lookup type and a value set?](#)
- [Overview of Value Sets](#)
- [Validation Type Options for Value Sets](#)

## Considerations for Bind Variables in Table-Validated Value Sets

After you assign a value set to a flexfield, you can use bind variables in the WHERE clause.

These 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's 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's 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 can't 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's assigned to the value set that's 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's 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 can't assign a table value set to a context segment if the WHERE clause uses `VALUESET.value_set_code` or `SEGMENT.segment_code` bind variables.



### Related Topics

- [Create and Edit Table-Validated Value Sets Based on Lookups](#)

## Import Value Set Values

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 hundreds of values might be more efficient than creating them individually using the **Manage Value Sets** task. However, for just a few values, it might be quicker to perform the relevant tasks. Here are a few things you need to keep in mind while creating these files:

- Use a vertical bar or pipe ( | ) as a delimiter between fields for both the header and the value rows.
- As per the Oracle Fusion Cloud WebCenter Content specification, set the file encoding to UTF-8 without the Byte Order Mark (BOM).
- Make sure that the first line in the file is a header line, and the files look exactly the same as shown in the sample file.

Here's a sample file for value set value. You can see the header values at the beginning of the file, followed by the line entries of the two value set codes that are to be imported.

```
VALUESETCODE|VALUE|ENABLEDFLAG  
FLEX_KFF1_IND_CHR_L10_ZEROFILL|5000|Y  
FLEX_KFF1_IND_CHR_L10_ZEROFILL1|5001|N
```

To import value set values, do these tasks:

1. Create a flat file containing the values in the value set that you want to add or update.

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** task in the Setup and Maintenance work area.

2. Upload the flat file to the content repository using the File Import and Export page.

3. Import the file using the appropriate **Manage Value Sets** task in the Setup and Maintenance work area. To import the file, do these tasks:
  - a. In the Manage Value Sets page, click **Actions > Import Related Values**.
  - b. In the **Account** field, select the user account containing the flat file.
  - c. In the **Related Value Set File Name** field, enter the name of the related value set file you uploaded using the File Import and Export page.
  - d. In the **Related Values File Name** field, enter the name of the related values file you uploaded using the File Import and Export page.
  - e. 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

- [Requirements for Flat Files to Upload Value Set Values](#)
- [Overview of Files for Import and Export](#)
- [Upload Value Set Values Process](#)

## Requirements for Flat Files to Upload Value Set Values

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 values in the value set you want to add or update. You upload these flat files using the File 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 mandatory columns. The following table lists the three mandatory columns and their data types.

Column Name	Data Type
ValueSetCode	VARCHAR2(60)
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 mandatory columns. The following table lists the four mandatory columns and their data types.

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 optional columns. The following table lists the 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)
User-defined Value Attribute1 ... User-defined Value Attribute10	VARCHAR2(30)

## Optional Columns to Support Descriptive Flexfields

You can also capture these additional columns on the value set values in the Manage Value Sets page. To capture these additional columns, you must configure the FND\_VS\_VALUES descriptive flexfield. This descriptive flexfield expects the context code to correspond to the value set code.

Column Name	Description
globalSegment1ApiName	This column corresponds to the API Name for a global segment defined in the FND_VS_VALUES descriptive flexfield.

Column Name	Description
<code>contextSensitiveSegment1ApiName</code>	This column corresponds to the API Name for a context sensitive segment defined in the FND_VS_VALUES descriptive flexfield.

Here's a sample file that contains the value set codes:

```
ValueSetCode|IndependentValue|IndependentValueNumber|IndependentValueDate|IndependentValueTimestamp|Value|
ValueNumber|ValueDate|ValueTimestamp|TranslatedValue|Description|EnabledFlag|StartDateActive|EndDateActive|
SortOrder|SummaryFlag| globalSegment1ApiName | contextSensitiveSegment1ApiName
VS1|||||DFF|||||Testing for WS updated|Y|2000-01-11|2000-01-2|1||seg1v1|ndseg1vs3
VS1|||||KFF|||||Testing for WS updated without segments|Y|2000-1-11|2000-01-22|1|seg1v2|nd1seg1vs4
```

### Related Topics

- [Import Value Set Values](#)
- [Overview of Files for Import and Export](#)

## Upload Value Set Values Process

This process uploads a flat file containing value set values for flexfields. You can use the 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 could be more efficient than using the Import action in the Manage Value Sets tasks in the Setup and Maintenance work area. However, for a 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 File Import and Export page.

**Note:** Here are some alternate ways of doing this task:

- Using the File Import and Export page. For more information, see [Export and Import of CSV File Packages](#).
- Using the SOAP web services or REST APIs. For more information, see the Value Sets REST Endpoints section in the [REST API for Common Features in Oracle Fusion Cloud Applications](#) guide.

## Parameters

### Flat File Name

Enter the name of the flat file you uploaded using the File Import and Export page.

### Account

Select the user account containing the flat file in the content repository to upload.

### Related Topics

- [Import Value Set Values](#)
- [Export and Import of CSV File Packages](#)
- [REST API for Common Features in Oracle Fusion Cloud Applications](#)
- [What are the scheduled processes?](#)

## Translation of Flexfield and Value Set Configurations

When you first configure a flexfield or segment, the **translatable** text 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, sign in with that locale, or use the **Settings and Actions** menu. Click your user image or name in the global header to open this menu, and select **Set Preferences** to translate the text for a particular locale. 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 the value set is of type Character with a subtype Translated text. You define the translations by setting the current session to the locale for which you want to define the translation. Then use the Manage Value Sets task to enter the translated values and descriptions for that locale.

For table-validated value sets, if the underlying table supports translations, use a translation view as the basis for a table-validated value set. You can set the **ID Column Name** field to the non-translated primary key and the **Value Column Name** field to the translated key.

### Related Topics

- [Considerations for Planning Value Sets](#)
- [Create and Edit Table-Validated Value Sets Based on Lookups](#)

## FAQs for 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 role of the user in the application.

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 application.

For example, Western-region employees may choose only California, Nevada, Oregon, and so on as valid values. They can't select non-Western-region states. Eastern-region employees may choose only New York, New Jersey, Virginia, and so on as valid values, but can't select non-Eastern-region states. Value set security is implemented using Oracle Fusion Cloud Applications data security.

## How can I set a default value for a flexfield segment?

When you define or edit a flexfield segment, you pick a value from the assigned value set and set it as default.

You can set the default value for a descriptive flexfield segment to be a parameter. The mapped entity object attribute 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 select 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*

- [Default Segment Values](#)

## Descriptive Flexfields

### Considerations for Enabling Descriptive Flexfield Segments for Business Intelligence

A descriptive flexfield that's registered in the database as enabled for Oracle Transactional Business Intelligence (OTBI) includes a BI-enabled setting for each of its segments. When a global, context, or context-sensitive segment is BI-enabled, it's available for use in Oracle BI.

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 Data Extensions for Oracle Transactional Business Intelligence process to import the flexfield changes into the Oracle Transactional 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 information about logical objects and import, see the *Creating and Administering Analytics and Reports* guide for your products.

## Flattening

When you deploy a BI-enabled descriptive flexfield, the deployment process generates an additional set of flattened Application Development Framework (ADF) business components. The ADF business component is generated in addition to the usual ADF business components and the ADF faces artifacts. The flattened business components include attributes for BI-enabled segments only. Flattening means each user-defined column in each context shows up as an attribute in the 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, what's included as part of the flattened components depend on whether you assign a label to the segment or not:

- 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're 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 can't 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 Transactional Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Data Extensions for Oracle Transactional Business Intelligence process. For information about logical objects and import, see the Creating and Administering Analytics and Reports guide for your products.

**Note:** When you import a flexfield into the Oracle Transactional 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

- [Considerations for Enabling Key Flexfield Segments for Business Intelligence](#)
- [Overview of Transactional Business Intelligence Configuration of Descriptive Flexfields](#)
- [Overview of Flexfield Change Import](#)

## Incentive Compensation Descriptive Flexfields

You can define descriptive flexfields to store additional information not available in the standard fields in a table. The fields use attributes and attribute numbers. This topic provides a list of the available flexfields for Incentive Compensation.

Flexfield Name	Table	Use	Hints	Business Unit Context Sensitive
Base Transaction CN_TP_BASETRANS_DFF	Base transaction table CN_TP_TRANSACTIONS_ALL	Calculation or reporting	Usually this is done at the start of an implementation with some additions later when necessary.	Yes if needed
Participants CN_PARTICIPANTS_DFF	Participant header table CN_SRP_PARTICIPANTS_ALL	Storing more information about a participant	Generally to hold data which isn't date effective.	No
Participant Detail CN_PARTICIPANT_DETAIL_DFF	Participant detail table CN_SRP_PARTICIPANT_DETAILS_ALL	Storing more participant detail information	Generally to hold data which is date effective.	No

Flexfield Name	Table	Use	Hints	Business Unit Context Sensitive
Incentive Compensation Plan <b>CN_COMP_PLANS_DFF</b>	Compensation plan table <b>CN_COMP_PLANS_ALL_B</b>	Storing more information about a compensation plan	Example: You want to use an attribute to group a bunch of compensation plans together or you want to identify the compensation plan by a tag for reporting irrespective of what the name or description is.	No
Incentive Compensation Plan Component <b>CN_PLAN_COMPONENTS_DFF</b>	Plan component table <b>CN_PLAN_COMPONENTS_ALL_B</b>	Storing more information about a plan component	Example: You want to use an attribute to group a bunch of plan components together or you want to identify the plan component by a tag for reporting irrespective of what the name or description is.	No
Incentive Compensation Performance Measure <b>CN_MEASURES_DFF</b>	Performance measure table <b>CN_FORMULAS_ALL_B</b>	Storing more information about a performance measure	Example: You want to use an attribute to group a bunch of performance measures together or you want to identify the performance measure by a tag for reporting irrespective of what the name or description is.	No
Participant Plan <b>CN_SRP_COMP_PLANS_ALL_DFF</b>	Compensation plan assigned to the participant table <b>CN_SRP_COMP_PLANS_ALL</b>	Storing more data specific to the participant-plan assignment record level	Only the attribute fields (not attribute number fields) can be used in a calculation expression. Also, these DFF segments aren't available for BI.	No

## Base Transaction Descriptive Flexfield

Use Base Transaction incentive compensation descriptive flexfield global segments to store transaction attributes that don't exist by default in the CN\_TP\_TRANSACTIONS\_ALL table.

The global segment data types VARCHAR2 and NUMBER have these attributes available for immediate use.

Data Type	Attributes
VARCHAR2 (240 CHAR)	ATTRIBUTE1 - ATTRIBUTE150

Data Type	Attributes
NUMBER	ATTRIBUTE_NUMBER1 -- ATTRIBUTE_NUMBER50

In the Setup and Maintenance work area use the Incentives functional area in the Sales offering.

- Use the Manage Incentive Descriptive Flexfields task to configure one or more global segments, including associating any relevant value sets or lookups, and deploy the Base Transaction descriptive flexfield.
- Use the Configure Tables and Columns task to enable the global segments for use in the calculation process.
- Use the Manage Custom Rule Qualifiers task to enable the global segments for use in the crediting and classification processes.

*Related Topics*

- [Why did my flexfield changes not appear in the UI?](#)
- [How can I set a default value for a flexfield segment?](#)
- [Overview of Descriptive Flexfields](#)
- [How Flexfields Work with Oracle Application Cloud Architecture](#)
- [Considerations for Managing Descriptive Flexfields](#)



# 11 Currency Conversion Rates

## Import Currency Conversion Rates

You can manually import currency conversion rates into Incentive Compensation using the template available in Support document 2785163.1. You can also use the import to update conversion rates.

### Set Currency Parameters

Using the Manage Parameters task in the Setup and Maintenance work area, set these parameters.

Parameter	Purpose
Transaction Conversion Rate Type	Converts base transaction currencies during crediting, rollup, and calculation processing
Collection Conversion Rate Type	Converts transaction amounts from one currency to another during collection
Payment Conversion Rate Type	Converts the payment transactions from one currency to another

Use the Manage Incentive Currency Conversions task in the Setup and Maintenance work area to create any company-defined rate types included in your import workbook.

### Add Rates to the Import File

To populate the import files:

1. Find the ICCurrencyConversionRateImportTemplate.xlsx file in Support document 2785163.1 and save it locally.
2. Enter the currency conversion rates using the instructions and help included in the import file.

The import process uses the default value Incentive Compensation Daily Rate for any empty Conversion Rate Type cell.

3. Upload the file using the instructions in the first tab of the file.

**CAUTION:** The Import Currency Conversion Rates process fails if you reorder or remove columns in your import file.

### Use a Separate File to Update Conversion Rates

You can import to make changes to existing conversion rates. Only the rate can be changed. Updates must be in a separate import file from an import for new conversion rates. Here's how to create your file:

- In the Update Rate column, enter **update** for each row. Your file for adding conversion rates can leave this column blank or enter **insert**. The column is case insensitive.

- Other than rate, the fields must contain the exact values of the existing rate. These include From Currency, To Currency, Conversion Rate Type, and effective dates.

If the rate you're changing has been used, then you need to reprocess any of the following that apply to use the new rate.

- Transactions
- Credits
- Earnings
- Payments
- Transaction Import

## Import the Currency Conversion Rates

Use the Import Currency Conversion Rates task in the Credits and Earnings work area to import the currency conversion rates. The Run All Transaction Processes task includes the Import Currency Conversion Rates process. The Run All Transaction Processes task imports any files uploaded to the `ic/incentiveCompensationCurrencyExchangeRates/import` Web Center folder.

## Review Your Import Results

Use the View Process Logs task to search for and view your import results. Click the audit ID for the relevant process to open the Process Details page, which provides the log details for the parent and any related child processes. The details include the number of processed currency conversion rate records, which you can compare with the number of records in the source XLSM file. You can also use the Manage Incentive Currency Conversions task in the Setup and Maintenance work area to confirm that the rates match those of the source XLSM file.

### *Related Topics*

## How can I use different rates to process transactions and payments in different business units?

These tasks in the Setup and Maintenance work area are part of the Sales offering in the Incentives functional area.

1. Use the Manage Incentive Currency Conversions task to define multiple currency rate types for the same date, different business units, or different usage.
2. Use the Manage Parameters task to select the rate type in the appropriate conversion rate type fields.

The rate types can match those in your general ledger, but don't have to.

Here's an example.

- One business unit requires daily-based rates where the rate is different for each day.
- Another business unit requires period-based rates where the period is monthly and each period has the same rate. The rate might be the average or end rate for the period.
- Yet another business unit also requires period-based rates, but its period is weekly instead of monthly.

# 12 Incentive Compensation Calendars and Intervals

## Create Calendars and Intervals

Create an incentive compensation calendar for each business unit so you can process transactions.



Create interval types to group calendar periods to accumulate achievements, earnings, and payments. Existing interval types are year, semi-annual, quarter, and period (calendar period).

### Related Topics

- [Manage Incentive Calendars](#)
- [Interval Types for Grouping Calendar Periods](#)

## Manage Incentive Calendars

You must associate an incentive compensation calendar with each business unit before you can process transactions for the business unit.

To manage your calendars, follow these steps:

1. Create the calendar
2. Assign the calendar to a business unit
3. Edit the status of periods within the business unit
4. Create periods in the calendar

## Create the Calendar

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Sales
  - o Functional Area: Incentives
  - o Task: Manage Incentive Calendars

2. On the Manage Incentive Calendars page, select the period type, which is how you divide your calendar or fiscal year.

Create period types if you need them.

- o Enter the number of periods in a year so that the application can validate the periods that you define for the calendar.
- o Select the shortest period you need (for example, weekly or monthly). You can't accumulate attainments for a period type shorter than your selection. For example, if you select monthly, then you can't accumulate attainments weekly. The application accumulates attainments, maintains goals and subledger balances, and processes payments at this level or higher levels.

**Note:** You can't edit or delete standard or user-created period types used by any calendar.

3. Define the periods by using the selected period type:

- o Period, such as Jan-2015 or Quarter1-2015

Abbreviate the period name if you want to, for example, Jan for January or W1 for Week1.

- o Sequence

The application arranges periods according to the sequence values you enter.

- o Start and end dates

The date ranges within one period can't overlap with other periods or skip dates between periods.

Create all the periods you need for the compensation plans, measures, and goals before creating any plans, measures, or goals.

4. Save the calendar.

The Save process stores the calendar data in the calendar table CN\_CALENDARS and the period data in the period table CN\_PERIODS.

## Assign a Calendar to a Business Unit

1. In the Setup and Maintenance work area, go to the Manage Parameters task.
2. You must select the business unit to set the context for this task.
3. Select the calendar that you want to use for the business unit.
4. Save your changes.

The Save process inserts the periods (zero or more) that are assigned to that calendar into the following business-unit-level tables:

- o The CN\_CAL\_PER\_INT\_TYPES table stores each period for each interval type defined for the business unit.
- o The CN\_PERIOD\_STATUS table stores basic period data, including the default status, Never Opened, which is given to each period.



## Edit the Period Status Within the Business Unit

1. Open the Manage Periods page using either of these tasks:
  - o Manage Periods in the Participant Assignments work area
  - o Manage Open Period Process in the Setup and Maintenance work area
2. Change the status of all periods you want to open.
3. Select to include period data in participant reports.
4. Save your changes.

The Save process updates the period statuses in the CN\_PERIOD\_STATUS table accordingly. If required, it starts a scheduled process to populate the period data in all of the participant-related tables.

## Create Calendar Periods

1. In the Setup and Maintenance work area, go to the Manage Incentive Calendars task.
2. On the Manage Incentive Calendars page, select the calendar.
3. Add future periods to the calendar.
4. Save your changes.

The Save process inserts the new period records into these tables:

- o CN\_PERIODS: Tracks the calendar periods not business unit-based
- o CN\_PERIOD\_STATUS: Tracks the periods and associated statuses for each business unit

For example, if there are three business units associated with the calendar, then insert the newly created period record into all of the business unit tables.

- o CN\_CAL\_PER\_INT\_TYPES: Groups each period into the interval type for each business unit.

For example, if there are three business units associated with a calendar, and assuming each one has four interval types (Period, Quarter, Semi Annual, and Year), then insert the newly created period record as 12 records (3 business units x 4 interval types).

## Add a New Fiscal Year

Add periods for a new fiscal year to a calendar in use by business units:

1. Create all the periods required for performance measures and goals first using the Manage Incentive Calendars task in the Setup and Maintenance work area.
2. Use the Manage Periods task in the Participant Assignments work area or the Manage Open Period Process task in the Setup and Maintenance work area to:
  - o Correct the interval numbers for the new period for various interval types for the business unit.
  - o Open the period in each business unit to use the period for transaction processing.

The Save process on the Manage Incentive Calendars page updates the period status and interval-related tables for all the business units you assigned the calendar to.

*Related Topics*

- [What happens if I assign a calendar to an incentive compensation business unit?](#)
- [Period Statuses You Can Select](#)
- [Interval Types for Grouping Calendar Periods](#)

## Interval Types for Grouping Calendar Periods

Interval types group specific calendar periods to accumulate achievements, such as interval-to-date attainment, earnings such as year-to-date earnings, or payments during calculation and payment processing.

There are four delivered interval types:

- Year
- Semi Annual
- Quarter
- Period

Period has the same definition as the calendar period.

You can create interval types, as required.

### Example of Quarterly Intervals

This example shows how to use interval numbers to group periods into quarters.

Period	Year	From Date	To Date	Interval Number
Jan-15	2022	1-Jan-2022	31-Jan-2022	2022001
Feb-15	2022	1-Feb-2022	28-Feb-2022	2022001
Mar-15	2022	1-Mar-2022	31-Mar-2022	2022001
Apr-15	2022	1-Apr-2022	30-Apr-2022	2022002
May-15	2022	1-May-2022	31-May-2022	2022002
Jun-15	2022	1-Jun-2022	30-Jun-2022	2022002
Jul-15	2022	1-Jul-2022	31-Jul-2022	2022003
Aug-15	2022	1-Aug-2022	31-Aug-2022	2022003

Period	Year	From Date	To Date	Interval Number
Sep-15	2022	1-Sep-2022	30-Sep-2022	2022003
Oct-15	2022	1-Oct-2022	31-Oct-2022	2022004
Nov-15	2022	1-Nov-2022	30-Nov-2022	2022004
Dec-15	2022	1-Dec-2022	31-Dec-2022	2022004

## Example of Yearly Intervals

This example shows how to use an interval number to group periods into a year.

Period	Year	From Date	To Date	Interval Number
Jan-15	2022	1-Jan-2022	31-Jan-2022	2022
Feb-15	2022	1-Feb-2022	28-Feb-2022	2022
Mar-15	2022	1-Mar-2022	31-Mar-2022	2022
Apr-15	2022	1-Apr-2022	30-Apr-2022	2022
May-15	2022	1-May-2022	31-May-2022	2022
Jun-15	2022	1-Jun-2022	30-Jun-2022	2022
Jul-15	2022	1-Jul-2022	31-Jul-2022	2022
Aug-15	2022	1-Aug-2022	31-Aug-2022	2022
Sep-15	2022	1-Sep-2022	30-Sep-2022	2022
Oct-15	2022	1-Oct-2022	31-Oct-2022	2022
Nov-15	2022	1-Nov-2022	30-Nov-2022	2022
Dec-15	2022	1-Dec-2022	31-Dec-2022	2022

#### *Related Topics*

- [Manage Incentive Calendars](#)
- [What happens if I edit interval numbers after using them in incentive compensation processing?](#)
- [Where are incentive compensation interval types used?](#)
- [Why can't I delete an incentive compensation interval type?](#)

## FAQs for Calendars and Intervals

### Can I use the same incentive compensation calendar for different business units?

Yes. In the Setup and Maintenance work area, use the Manage Parameters task in the Incentives functional area to assign the calendar. You must select a business unit to set context when using this task.

The application automatically propagates any change to the calendar, such as new periods, to all of the business units using the calendar.

#### *Related Topics*

- [What happens if I assign a calendar to an incentive compensation business unit?](#)

### What happens if I assign a calendar to an incentive compensation business unit?

You can update the calendar name and add more periods. You can't change the period type.

#### *Related Topics*

- [Can I use the same incentive compensation calendar for different business units?](#)

### What happens if I edit interval numbers after using them in incentive compensation processing?

You must run the calculation and payment processes again for all of the periods affected by the change in the interval numbers.

*Related Topics*

- [Why can't I delete an incentive compensation interval type?](#)
- [Where are incentive compensation interval types used?](#)

## Where are incentive compensation interval types used?

They're used with performance measures, plan components, and payment plans in the following ways.

- Performance measures as performance intervals to accumulate attainment information and as goal intervals
- Plan components to specify how frequently to calculate earnings: the payout frequency
- Payment plans as payment intervals to define draw and cap rules

You can't delete a user-defined interval type if it's used in any of these ways.

*Related Topics*

## Why can't I delete an incentive compensation interval type?

You can't delete the delivered interval types Year, Semi-Annual, Quarter, and Period. Nor can you delete any interval type that you created if anyone used it in a performance measure, plan component, goal, or payment plan.

*Related Topics*



# 13 Configuration for a Business Unit

## Parameters

### Currency Parameters for Incentive Compensation

You can set the operating currency for each business unit, and also specify transaction and payment conversion rate types.

In the Setup and Maintenance work area, use the Manage Parameters task.

- Offering: Sales
- Functional Area: Incentives

**Note:** After you save the operating currency parameter setting for the business unit, you can't change it.

### Operating Currency

Operating currency is the core, default currency for a business unit. You can report across business units only if they use the same currency. Generally, the application uses operating currency for these purposes:

- To report across various transactions within a business unit  
Examples: Cost of compensation across all incentive compensation plans and total incentive payments for the period of January
- For all amount values in compensation plans in the Compensation Plans work area

### Processing Currency

Processing currency is the core currency for credit, earnings, and payment transaction amounts. The application maintains participant subledger balances in the processing currency only. The processing currency is always the same as the operating currency.

### Multicurrency Support

To support multicurrency processing, the source transaction amount and event date are used to populate all transactions with appropriate values for each relevant attribute:

- Currency
- Conversion rate
- Amount attribute

Base, credit, earnings, and payment transaction amounts are stored in these currencies.

Transaction	Source Currency	Processing Currency	Operating Currency	Participant Home Currency
Base	Yes	No	Yes	No
Credit	Yes	Yes	Yes	Yes
Earnings	No	Yes	Yes	Yes
Payment	No	Yes	Yes	Yes

Currencies other than the processing currency are available for transaction traceability and reporting. For example, when you adjust the amount of a base transaction, that adjustment is shown in the source currency while credit and earning amounts are shown in the processing currency.

## Conversion Rate Types

Create rate types such as Corporate, Daily, and Period Average, and define rates differently for each one of them to use in different scenarios. For example, you decide to use Daily rates to convert transaction and credit amounts, and Period Average rates to convert payment amounts. Use the Manage Incentive Currency Conversions task in the Setup and Maintenance work area to create company-defined rate types. Here are the conversion rate type parameters and the purpose of each.

Parameter	Purpose
Transaction Conversion Rate Type	Converts base transaction amounts during crediting, rollup, and calculation processing
Collection Conversion Rate Type	Converts transaction amounts during collection processing
Payment Conversion Rate Type in the Payment Parameters region	Converts payment transaction amounts during payment processing. Payments are always made in the participant's home currency.  The Payment Conversion Date parameter determines whether the payment process uses the transaction date or the payment batch pay date to look up the corresponding currency rate to use.

### Related Topics

- [Incentive Payment Parameters](#)
- [Overview of Incentive Compensation Transaction Processing](#)

## Compensation Plan Parameters

These settings that you make using the Manage Parameters task in the Setup and Maintenance work area affect plan assignment, rate tables, and plan import.



- Numeric Precision for Rates

Enter the number of decimal places to be used when entering rates in a rate table.

- Default Option for Plan Import Conflict Resolution

You can import compensation plans to your current business unit from another environment or a different business unit. The import includes all descendant objects. If a descendant object already exists, you can either reuse the existing one or create new objects for each.

- Reuse
- Create

If the object exists, then the new one is created with same name plus an appended suffix. Credit categories are always reused.

## Plan and Component Assignment

You can specify which individualization option to apply in the Participant Snapshot work area by default. These values apply only to new records and don't affect existing records. New records include any new participant assignment to a plan or new plan component added to an existing participant plan. You can override these settings for individual participant plans in the Participant Snapshot work area.

- Default State for Individualizing Plan Target Incentive

If you set to Yes, then Individualize target incentive is selected for you for any new participant assignment to a plan. Edits to the main plan don't overwrite your individualized target incentive or component target incentive percentage.

- Default Individualized Plan Components

You have four selections to set the default to individualize a plan component:

- None

No individualized data is overwritten by base plan changes.

- All

Base plan changes override transaction (event) factors, commission rates, and goals including those defined for intervals and periods.

- Rates

Base plan changes override commission rates.

- Goals

Base plan changes override goals including those defined for intervals and periods.

- **Default Participant Plan Approval Status**  
Select one of these approval statuses as the default for when you assign a participant to a plan.
  - **Ready to Publish**  
Indicates a participant was assigned the plan.
  - **Submitted**  
Indicates the analyst submits an approval or distribution request.
  - **In Progress**  
The plan document is going through the approval hierarchy.
  - **Accepted**  
The participant accepts the plan document.
  - **Rejected**  
The participant rejects the plan document.

#### *Related Topics*

- [Options for Individualizing Compensation Plans and Plan Components](#)
- [Import an Incentive Compensation Plan](#)
- [Deploy Compensation Plans Process](#)

## Classification Parameters

Settings on the Manage Parameters page of the Setup and Maintenance work area affect if and when the classification process runs. If you choose not to enable classification, then incentive processing assumes that the source transactions include credit categories.

Here's a list of the classification parameters:

- Enable Classification
- When to Classify Transactions
- Collect Cancellations as Zero

Create and manage the classification rule hierarchy and rules in the Compensation Plans work area.

### When to Classify Transactions

If you enable classification, then you further specify when to run the process, by selecting from these options:

- **After crediting and rollup and before calculation**  
Choose this option if you use any values from the crediting process for classification. Classifying after the crediting process runs gives you more flexibility in differentiating the credit category for the credit receiver's transactions. Use this option if you import credit transactions and want to classify them.
- **After collection and before crediting**  
Choose this option if the crediting process uses values from the classification.

**Tip:** You may find it useful to include the identified category in your credit rules to help identify credit assignments.

After you set this parameter in a production application, we recommend that you don't change it. Each process looks for specific status values to determine which transactions to include. If you do change the parameter value, then run all related processes again for all of the currently open periods with transactions that are unprocessed or in process.

## Crediting and Rollup Parameters

Parameters that you set using the Manage Parameters task in the Setup and Maintenance work area affect if and when crediting and rollup processes run. These parameters are application-level parameters that you set up as part of your implementation.

These selections also determine which credit rule hierarchy to use and whether to aggregate transactions during rollup. You create and manage the rule hierarchies and rules in the Participant Assignments work area.

**Tip:** After implementation, don't change these parameters in the middle of an accounting period. A change can require rerunning processes from the start of the period. Wait until the end of the period when you're sure you don't have transactions.

### Enable Direct or Rollup Crediting

You can specify whether to enable both direct and rollup crediting or only one of the two processes. This table describes processing expectations and actions when you enable only one process.

Enabled Process	Processing Expectations and Actions
Direct Crediting only	Set up your credit rules to generate direct, indirect, and rollup credit transactions on transactions that match the rule qualifying criteria.
Rollup Crediting only	<p>You must include credit receiver, credit amount, and credit split data on the transactions. The collection process then validates these transactions and loads them as credit transactions. The rollup process runs using the collected credit transactions.</p> <p>Include direct credit receivers in the rollup hierarchy, on the lowest level rules.</p>

You can set a process code on a transaction to override the results of crediting and rollup processes on that transaction. Your collected transactions must include the credit receiver, credit amount, split percentage, and revenue type. Your override requires these steps:

- Provide the relevant process code on the source transaction

For details about the valid process codes, see the [How You Override Classification, Crediting, and Rollup Process Codes](#) topic.

- Run the collection and crediting processes to ensure credit transactions are picked up for subsequent processing.

## Rollup Hierarchy to Use

If you enable rollup crediting, then you have two more parameters to set:

- Which hierarchy to use to create the rollup credits
- Whether to aggregate transactions during rollup

You can use these hierarchies for rollup processing.

Rollup Hierarchy Option	Description
Credit hierarchy	Manage your rollup hierarchy within the credit hierarchy using the participants who are direct credit receivers associated with the direct credit rule. Participants in parent positions automatically receive all of the credit for direct credit receivers in descendant positions who have Roll Up to Parents selected on the direct credit rule.
Rollup hierarchy	Participants in parent positions automatically receive all of the credit for participants in descendant positions who report to them.
Both	Use both the credit and rollup hierarchies to determine rollup credit.

## Summarize Transactions

If you elect to summarize transactions during rollup, then you can also specify whether to summarize based on your company-specific criteria.

You can choose to summarize transactions during rollup. If you want to summarize using company-specific criteria, then you need to modify a procedure to replace the default summary process with your own process. This table lists the procedures you can modify.

Selected Rollup Hierarchy	Procedure to Modify
Credit hierarchy	CN_TP_CUSTOM_SUMMARIZE_CREDITS.summarize_credits_with_rule
Rollup hierarchy	CN_TP_CUSTOM_SUMMARIZE_CREDITS.summarize_credits_without_rule

Use these steps to modify a procedure:

1. Create your code.
2. Create a service request asking the Incentive Compensation product development team to review the code.
3. Create a collaboration service request for the development team to update the package.
4. Enter your rollup procedure name in the Manage Parameters page.

## Use Cases for Parameter Settings

To help you figure out which combination of settings to use, review this list of use cases to find one that matches your situation. This table suggests how to set the parameters for each use case.

Use Case	Enable Direct Crediting	Enable Rollup Crediting	Rollup Hierarchy to Use
Collect credit transactions from another source, such as accounts receivable.	No	Yes	Rollup hierarchy
Collect credit transactions from another source and also create credit transactions within incentive compensation.	Yes	Yes	Credit hierarchy or Both
Create direct credit transactions using direct credit rules.	Yes	No	Not applicable
Create direct and indirect credits without using a reporting structure.	Yes	No	Not applicable
Collect credit transactions from another source. Within incentive compensation, create rollup and team credit transactions using the collected credit transactions.	No	Yes	Rollup hierarchy
Create credit transactions using incentive compensation direct and rollup credit rules.  You have more control over which direct credit splits roll up the hierarchy using this option.	Yes	Yes	Credit hierarchy
Collect transactions that include credit receivers. Also create team credits where every team member receives the same attainment based on each others' sales, without a reporting structure.	No  Use team credit rules as there is no parameter setting for teams.	No	Not applicable
Create credit transactions using direct credit rules. Also create team credits where every team member receives the same attainment based on each others' sales, without a reporting structure.	Yes  Use team credit rules as there is no parameter setting for teams.	No	Not applicable
Create credit transactions using direct credit rules. Create rollup credit transactions using the credit hierarchy. Possibly create overlays using the rollup rule hierarchy.  This setup is extremely rare and avoiding duplicate rollups is complex.	Yes	Yes	Both

### Related Topics

- [How Credits Roll Up the Credit Hierarchy](#)
- [What happens if I edit an incentive compensation team or team member after processing?](#)
- [What happens if I roll up incentive compensation credit to a parent?](#)
- [How Qualifying Criteria Work With a Rule Hierarchy](#)
- [What happens if I edit an incentive compensation rollup credit receiver after processing?](#)

## How can I optimize throughput for incentive compensation batch processing?

Ensure that you have at least three times the number of batches as workers (or processing threads) to keep all workers busy simultaneously, most of the time.

- For Classification and Crediting Batch Processing, for **Number of Batches**, enter the results for this expression:  $3 \times \text{Number of Workers}$ . For Rollup and Calculation Batch Processing, the number of batches and batch size are determined by the application for optimum batching.
- For Participant Batch Size for Payment, for **Participant Batch Size**, enter the result of this expression:  $(\text{Number of Participants} / (3 \times \text{Number of Workers}))$

Start with the recommended configuration and refine the parameters based on your testing results.

### Related Topics

- [How can I optimize incentive compensation performance while using attributes?](#)

## Methods of Grouping Transactions for Processing

You can group transactions into physical batches to improve performance.

Use any of these methods for grouping transactions:

- Tell the application to determine the most efficient way to process batches according to the number of credits to be processed.
- Import batch information from the source application.
- Set the Number of Batches parameters.
- Specify the batch number by participant.

### The Application Determines Batch Processing Method

The application can intelligently determine the calculation batches based on the number of credits to be processed. It determines the optimal number of batches and batch sizes (number of participants) to be included in each calculation

batch, based on the volume of credits to be processed and the number of included participants. Here's how to enable this method:

1. In the Setup and Maintenance work area, use the following:
  - o Offering: Sales
  - o Functional Area: Incentives
  - o Task: Manage Parameters
2. In the Manage Parameters page, select **Use number of batches and batch size determined by application** for the **Calculation Batch Processing** parameter.
3. Save your changes.

## Importing Batch Information from Source Application

In the Manage Parameters UI, the Batch Processing Parameters region, select the Use batch information provided at the transaction level option for Classification and Crediting Batch Processing and for Rollup and Calculation Batch Processing. The application preserves the batch number as it moves each transaction from one entity to another, for example, from transaction to credit or credit to earning.

**Note:** Ensure that transactions belonging to the same participant all have the same batch number.

## Setting Number of Batches Parameter

Use the Manage Parameters task in the Setup and Maintenance work area to set the Number of Batches parameters. Select the Use batch size determined by the application option for these parameters:

- Classification and Crediting Batch Processing
- Rollup and Calculation Batch Processing

## Participant Batch Configuration

To balance the processing of workloads, administrators can configure classification, crediting, rollup, and calculation processes to group participants by transaction volume into specific numbered batches. This feature maximizes processing performance even with skewed transaction data or large volumes of data. For example, you can put participants who receive hundreds of thousands of credit transactions every week into separate batches, one for each participant, for processing. You can then put other participants who receive fewer transactions together into another batch.

If you provide a batch number for a participant, then the application uses that batch number to group participants. All participants that have the same batch number are grouped together for processing. If you don't provide a batch number for all of the participants, then the application divides the transactions for the remaining unnumbered participants equally into different batches. The Number of Batches value determines the number of those batches.

Here's how to provide a batch number for a participant:

1. In the Setup and Maintenance work area, select the Manage Parameters task.
2. Select the option **Use batch information provided for participant** from the list for either or both of these parameters:
  - o Classification and Crediting Batch Processing
  - o Rollup and Calculation Batch Processing
3. Save your changes.

4. Navigate to Participant Assignments, Manage Participant Batch Groups.
5. You can use the search to find participants to be assigned to a batch.
6. For each participant, you can enter a batch number for any or all of the applicable processes:
  - o Calculation
  - o Classification
  - o Rollup
  - o Crediting

You can use any number for your batch number, as long as it's a positive integer.

#### Related Topics

- [Overview of Incentive Compensation Transaction Processing](#)

## How Credits Roll Up the Credit Hierarchy

If you enable rollup crediting, then you can specify to use the credit hierarchy. You can manage rollup crediting within the direct credit rule hierarchy using two credit receiver settings, Roll Up to Parents and Summarize Rollups.

Create and manage the direct credit rule hierarchy in the Participant Assignment work area. Set these rollup parameters:

- Enable rollup crediting and specify to use the credit hierarchy
- Enable aggregation of transactions during rollup

### Roll Up to Parents

For each participant that you associate as a credit receiver, you specify whether to roll up all direct credits to reporting parents in the rule hierarchy.

### Summarize Rollups

For each credit receiver where you select **Roll Up to Parent**, you also specify whether to summarize rollups. Summarizing rolled up transactions significantly reduces the number of transactions processed, improving performance substantially.

**Note:** Check that your aggregated calculations create the same result as when the calculation process calculates direct and rollup, or indirect, credits separately. Some formulas can generate different amounts of compensation if you use summarized rollup transactions.

### Scenario for Summarizing Rollups

This scenario is the foundation for answers to the questions asked in the next two sections. A credit hierarchy has five levels with five base participants, and all roll up to the same set of managers. If each of the five credit receivers has ten credit transactions, then the crediting process generates 50 credit transactions.



## What Happens When I Don't Summarize Rollups?

After crediting and rollup there are 250 credit transactions: 5 credit receivers x 10 credit transactions x 5 rollup levels. The crediting and rollup processes replicate base transactions to every resource in the rollup hierarchy.

## What Happens When I Summarize Rollups?

After rollup there are 25 summarized credit transactions (5 summarized credit transactions x 5 rollup levels) and 75 credit transactions instead of 250.

The rollup process:

1. Summarizes the credit transactions for each participant
2. Uses the five summary credits, one for each credit receiver, for rollup

## Earning Calculation Parameters

Control the order of calculating transactions that have the same event date by setting this parameter. The parameter applies only to transactions that are calculated individually, per event.

Choose an attribute for the Order Transactions with Same Date By parameter. It must be the transaction number or one of the 50 available numeric attribute descriptive flexfields on a transaction record. Leave the value null if it doesn't matter what order transactions for the same event date are calculated in.

## Participant Parameters for Assigning Roles Automatically

You can use rules to automatically assign roles to participants. The Run Participant Assignment process compares the attributes of participants with participant assignment rules and generates proposed assignments.

Settings that you make using the Participant Parameters region of Manage Parameters determine whether or not proposals require review and approval to be made active.

### Review and Approval of Role Assignment Proposals for New Participants Parameter

If you select Required, then every assignment proposal for a new participant requires review, approval, and submission to become active. If you select Not Required, then the role assignments are active after the Run Participant Assignment process runs. The default setting is Not Required.

### Review and Approval of Role Assignment Proposals for Existing Participants Parameter

You have several choices for participants who already have an assigned role. If you select Not Required, then the role assignments are active after the Run Participant Assignment process runs. Your other choices are to require review and approval for role deletions only, role updates and deletes only, or for all role assignments. The default setting is Required.

## Incentive Payment Parameters

Settings that you make using the Manage Parameters task in the Setup and Maintenance work area affect payment processing, including paysheet approvals and payment conversions. You also specify whether to reset subledger balances and the level of analyst security.

### Payment Approvals

If you don't require the payment approval process, then set **Default Paysheet Approval Status** to **Approved**. Approved is the final status before paying the payment batch. Enter values for these two amount parameters to specify an amount range that the payment process should automatically approve:

- Minimum Payment Automatic Approval Amount
- Maximum Payment Automatic Approval Amount

The provided payment approval process includes an exception rule that uses these values to send actionable notifications to compensation managers if a paysheet amount is less than or equal to the minimum amount and greater than or equal to the maximum amount. If these parameter amounts aren't set, then the payment approval process:

- Doesn't automatically approve any of the paysheets
- Uses the regular approval process that's in place and continues the regular approval process activities for all paysheets

### Currency Conversions

Several currencies are involved with payments.

- The primary currency of the paysheet is the processing currency.
- You can view the paysheet detail amounts in the operating and participant home currencies.
- Payments are always made in the participant's home currency.

You created one or more conversion rate types that each contains a set of currency to currency rates for specified dates. Select the payment conversion rate type you want to use to convert payments to the participant's home currency. The payment conversion date is compared with the rate table to choose the effective rate.

The Manage Participant Detail page in the Participant Snapshot work area shows the participant's home currency and effective dates. Moving to another country can change the participant's effective currency. Either the event date or the pay date is matched to the participant's effective home currency dates to determine the correct currency. Use the Home Currency field to select the event date of the payment transaction or the pay date.

### Subledger Balances

Specify whether to reset participant balances back to zero at the start of each year. If you answer no to the Reset Balances Each Year parameter, unpaid balances carry forward normally to be paid as if it's not the end of the year. If you answer yes, then make a selection for the Pay Prior Years Payments parameter.

- All Prior Years is the default. The current year payment batch includes payments due to be recovered from any prior years.

- One Prior Year includes in current year payment batches payments due or to be recovered from only one year prior to the current payment batch year.
- No Prior Years prevents including payments due or to be recovered from any prior years in current year payment batches..

## Analyst Security

The Analyst Security parameter controls which participants you can search for in the Select Participant tab of the Participant Snapshot work area. The setting also controls your search for a participant when you create a dispute. Select one of the following for analyst security:

- If you select **By participant**, then analysts can access data and tasks for only their assigned participants.  
**Note:** This parameter has no effect on the data that compensation managers can access.
- If you select **By business unit**, then all users with the Incentive Compensation Analyst job role can review and edit all participant data in the business units they have access to.
- If you select **By Group**, then analysts can access and perform certain tasks not only for participants associated with them but also for participants associated with other analysts within the group. An analyst group forms when analysts and compensation managers are selected as administrators and share the same node of the analyst hierarchy.

## Analyst Paysheet Visibility

Control who can see and perform tasks for paysheets using the Analyst Paysheet Visibility parameter. There are two settings:

- Use the default value **All Paysheets**, and analysts can view all pay sheets for participants in the summary page, but the Analyst Security setting controls their access to paysheet details.
- Set to **Use Analyst Security**, and analysts may not be able to view all paysheets in the summary page since visibility to a paysheet is controlled by the Analyst Security parameter.

## Allow Payment Batches in Future Periods

Control whether or not you can create and pay payment batches for a period in the future. The default value is no to prevent the creation of payment batches for future periods. Change it to yes in your test environment to conduct testing on new year compensation plans and payment flows. Change the parameter to yes if you have plan configurations that require creating payment batches for future periods.

**Tip:** After a payment batch for a specific pay group is paid for a period, you can't create payment batches for that pay group before that period. For example, if you create a payment batch for the paygroup US West in December 2020, then you can only create a new payment batch for the US West paygroup for December 2020 or later. You can't create one for November 2020. To prevent users from mistakenly paying payment batches in the future, set this parameter to No. Set it to Yes only if there is an absolute need to create payment batches in future periods.

### Related Topics

- [Currency Parameters for Incentive Compensation](#)
- [Pay Incentive Compensation Participants](#)
- [Participant Subledger Balances](#)

## Participant Termination Processing Parameters

When an Incentive Compensation participant is terminated in HCM Cloud, a process picks up the termination action and termination date and updates participant information. You must Set the Enable Participant Termination Processing parameter to yes and define how the termination date is applied.

The Run All Participant Processes process, with HCM Updates selected, updates the participant active end date with the termination date. The compensation end date is used to support continued incentive processing for a grace period. The pay group always ends on the compensation end date. Use the Manage Parameters UI to define these parameters:

- Period End for Compensation End Date

The compensation end date supports continued incentive processing for a grace period. This period of time is typically when any final adjustments and payments are made to close out the participant. You can set the compensation end date in either of the following ways:

- Set it to occur at the end of the period containing the participant active end date (which is the same as the termination date). For example, if the termination date is April 15 and your calendar period is monthly, then the compensation end date is April 30.
- Set it to occur a set number of periods after the active end date. If you select 3 periods, then the compensation end date in the example is July 31.

- Plan Assignment End Date

Choose either the participant active end date or the compensation end date to be the compensation plan assignment end date.

- Payment Plan Assignment End Date

Choose either the participant active end date or the compensation end date to be the payment plan assignment end date.

Indirect assignments are also end dated by end-dating the participant roles. Consider this when determining how you will use roles. For example, if you use a single role to assign the payment plan and the pay group and you then set the Payment Plan Assignment End Date to use the active end date, then the termination isn't processed. For this example, there's a conflict. The pay group must have an end date that matches the compensation end date (July 31) and the parameter for payment plan indicates you want the active end date (April 15). Since end dating that single role can't accomplish the desired end dates, the termination isn't processed.

## Tables and Columns

### Enable Table Columns as Attributes for Processing

Enable table columns to use as attributes in incentive compensation processing, such as in calculation expressions and as classification and direct credit rule qualifying criteria.

To enable table columns as attributes:

1. In the Setup and Maintenance work area, go to the following:

- o Offering: Sales
  - o Functional Area: Incentives
  - o Task: Configure Tables and Columns
2. In the Tables section, select the table, such as CN\_TP\_TRANSACTIONS\_ALL.
  3. In the Columns section row for the column that you want to enable:
    - a. In the **User Name** field, enter a display name, such as Area Code for the column AREA\_CODE.  
  
Each column that you enable for processing must have a corresponding user name because the user name appears in the choice lists.
    - b. Select the enable check box for the processes for which you want to use the column as an attribute, such as Enable for Classification.  
  
The processes for which you can enable the column attribute vary depending on the selected incentive compensation table.
  4. Click **Save and Close**.

*Related Topics*

- [Manage Custom Qualifiers and Lookups](#)
- [Incentive Compensation Expressions](#)

## Incentive Compensation Predefined Functions

Predefined functions are PL/SQL functions that give more freedom in expression building. Here are the predefined functions including use case examples. Add predefined functions to an expression using the expression builder in the Compensation Plans work area.

Predefined Function	Description	Use Case Example
Credit Category Name	Name associated with the credit category identifier.  Use the result for a rate table lookup.	Determine the commission rate based on the credit category.
Date Difference	Difference between two dates in terms of days, weeks, months, or quarters.  The return value could be days, weeks, months, quarters, and so on, based on the Period Type input parameter.	None
Previous Interval Attainment	Measure the attainment for the previous time interval.  The calculation doesn't round or truncate results. Also, if the previous interval has no attainment record for the measure, then the return value is zero.	Pay participant based on growth, defined as current interval attainment over previous interval attainment.

Predefined Function	Description	Use Case Example
Product Name	Name associated with the product identifier.  The calculation returns the results in upper case. Use the result for a rate table lookup.	Determine commission rate based on the product.
Prorated Measure Participation	Proportion of the number of participated days in the performance measure interval.  The actual calculation is (Number of Participation Days in Performance Measure) divided by (Number of Days in Calendar Interval). <ul style="list-style-type: none"> <li>The calendar interval is the formula interval for the period ID.</li> <li>The calculation assumes that the proration is based on calendar days and not on workdays.</li> <li>The calculation doesn't round or truncate results.</li> </ul>	Adjust the measure attainment based on plan participation. Typical in quota-based calculations.
Prorated Plan Component Participation	Proportion of the number of participated days in the plan component interval.  The actual calculation is (Number of Participation Days in Plan Component) divided by (Number of Days in Calendar Interval). <ul style="list-style-type: none"> <li>The calendar interval is the formula interval for the period ID.</li> <li>The calculation assumes that the proration is based on calendar days and not on workdays.</li> <li>The calculation doesn't round or truncate results.</li> </ul>	Adjust earnings based on plan participation. Typical in bonus and MBO plans.
Rank Participant Metrics	The ranking function ranks measures and earnings data in the cn_srp_per_form_metrics_all table and accepts these inputs: <ul style="list-style-type: none"> <li>Rank type (required): Indicates whether it's a regular rank (RANK) or Dense Rank (DENSE_RANK)</li> <li>Participant ID (required)</li> <li>Period ID (required)</li> <li>Attribute to be ranked (required): Attribute of the measure of a component that you want to rank. For example, OUTPUT_ACHIEVED_PTD, OUTPUT_ACHIEVED_ITD, INPUT_ACHIEVED_PTD, INPUT_ACHIEVED_ITD.</li> </ul>	Employees get a bonus based on the ranking of their quota attainment with a plan.

Predefined Function	Description	Use Case Example
	<ul style="list-style-type: none"> <li>Performance Measure ID or Formula ID (conditionally required): Either Formula ID or Plan Component ID is required.</li> <li>Plan Component ID (conditionally required): Either Formula ID or Plan Component ID is required.</li> </ul> <p>If you're ranking an attribute of a performance measure, you only need to pass plan component ID or salesperson compensation plan ID if you want to restrict the ranking within a component or plan.</p> <p>If you're ranking an attribute of a plan component, you only need to pass a salesperson compensation plan ID if you want to restrict the ranking within a plan.</p>	
Accumulate by Any Interval	<p>The Accumulate by Any Interval function will accumulate any metric of a performance measure or plan component by any interval irrespective of the measure's or component's own interval. It accumulates the metrics from the CN_SRP_PER_FORM_METRICS_ALL table and takes the following as inputs:</p> <ul style="list-style-type: none"> <li>Participant Plan ID (required)</li> <li>Plan Component ID (required)</li> <li>Formula ID (required)</li> <li>Interval Type (required): This could be any of the interval types defined for the business unit, such as Quarter or Period.</li> <li>Period ID (required)</li> <li>Metric to be accumulated (optional): The metric of the measure of a component that you want to accumulate. Examples: OUTPUT_ACHIEVED_PTD, INPUT_ACHIEVED_PTD, COMMISSION_PAID_PTD</li> </ul> <p>If you're accumulating a metric of a performance measure and don't pass the final metric parameter, the default metric accumulated is OUTPUT_ACHIEVED_PTD.</p> <p>If you're accumulating a metric of a plan component and don't pass the final metric parameter, the default metric accumulated is COMMISSION_PAID_PTD.</p>	A measure M1 has an interval of period. Another measure M2 with an interval of Quarter depends on M1, but needs the accumulated output value of M1 for the entire quarter.
Rolling Average Attainment	<p>Average attainment for the measure for a specified number of time intervals.</p> <p>The calculation starts from the current interval.</p> <p>Example: Assume that the interval is monthly, the period passed is May, and the number of intervals passed is 4. The calculation returns</p>	Pay participant based on rolling average attainment.

Predefined Function	Description	Use Case Example
	<p>average attainment for February, March, April, and May (the current period).</p> <p>If previous intervals have no or insufficient attainment records for the measure, then the average attainment calculation:</p> <ol style="list-style-type: none"> <li>1. Sums the attainment for the available intervals</li> <li>2. Divides the sum by the number of available intervals</li> </ol> <p>For example, if only two records are available and three month rolling is required, then the calculation sums the two months and divides by two.</p>	
YTD Target Incentive	<p>Year-to-date target incentive for the plan component.</p> <p>The actual calculation is (Target Incentive of Plan Component) multiplied by (Ratio of Current Interval Number to Number of Intervals Passed).</p> <ul style="list-style-type: none"> <li>• The returned value is in the calculation currency.</li> <li>• The calculation assumes that the plan component is for the calendar year.</li> </ul>	Support true-up for bonuses.

**CAUTION:** You can't import plans with expressions containing one or more predefined functions or user-defined queries that use the participant plan, plan component, formula, and measure IDs because the IDs don't exist yet in the destination environment. Or, if they do exist, then they don't reference the same attributes as the source environment. The import will fail.

For details about enabling attributes to pass to incentive compensation predefined functions, see the [Enable Attributes to Pass as Input Parameters for Predefined Functions](#) topic.

*Related Topics*

- [Enable Attributes to Pass as Input Parameters for Predefined Functions](#)
- [Create Incentive Expressions with Predefined Functions](#)

## Enable Attributes to Pass as Input Parameters for Predefined Functions

Enable a column to be the attribute the input parameter passes to the predefined function. Use the [Configure Tables and Columns](#) task in the [Setup and Maintenance](#) to enable the columns for calculation.



Here are the predefined functions:

- Credit Category Name
- Date Difference
- Prorated Plan Component Participation and YTD Target Incentive
- Prorated Measure Participation, Previous Interval Attainment, and Rolling Average Attainment

Each function section contains:

- The columns that you must enable for each function
- A suggested user name for each column as these columns don't have standard user names

Each column that you enable for calculation must have a corresponding user name, because the user name appears in the expression builder choice lists. You use the choice lists to select the attribute that each input parameter passes to the function. On the Tables and Columns toolbar View menus, select **Query By Example** to more quickly isolate the relevant table or columns.

Additional Information:

- For descriptions and use case examples of each predefined function, see the Incentive Compensation Predefined Functions topic.
- For details about creating predefined expressions with these attributes, see the Create Incentive Expressions with Predefined Functions topic.

## Enable the Credit Category Name Attribute

Select the CN\_TP\_CREDITS\_ALL table to enable this column and enter the suggested user name, if one isn't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
ELIGIBLE_CAT_ID	Credit category ID

## Enable Date Difference Attributes

Select the CN\_TP\_CREDITS\_ALL table to enable these columns and enter the suggested user names, if they aren't already present.

**Tip:** Enable for calculation only the date columns that you want users to select.

Column to Enable for Calculation	Suggested User or Attribute Name
CREDIT_DATE	Credit date
ROLLUP_DATE	Rollup date

## Enable Prorated Plan Component Participation and YTD Target Incentive Attributes

These two predefined functions use the same attributes.

Select the CN\_SRP\_PER\_FORM\_METRICS\_ALL table to enable these columns and enter the suggested user names, if they aren't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
SRP_COMP_PLAN_ID	Participant plan ID
PLAN_COMPONENT_ID	Plan component ID
PERIOD_ID	Period ID

## Enable Prorated Measure Participation, Previous Interval Attainment, and Rolling Average Attainment Attributes

These three predefined functions use the same attributes.

Select the CN\_SRP\_PER\_FORM\_METRICS\_ALL table to enable these columns and enter the suggested user names, if they aren't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
SRP_COMP_PLAN_ID	Participant plan ID
PLAN_COMPONENT_ID	Plan component ID
PERIOD_ID	Period ID
FORMULA_ID	Measure ID

## Enable the Product Name Attribute

Select the CN\_TP\_TRANSACTIONS\_ALL table to enable this column and enter the suggested user name, if one isn't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
INVENTORY_ITEM_ID	Product ID

## Enable Accumulate by Any Interval Attributes

Select the CN\_SRP\_PER\_FORM\_METRICS\_ALL table to enable these columns and enter the suggested user names if they aren't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
SRP_COMP_PLAN_ID	Participant plan ID
PLAN_COMPONENT_ID	Plan component ID
PERIOD_ID	Period ID
FORMULA_ID	Formula ID

## Enable Rank Participant Metrics Attributes

Select the CN\_SRP\_PER\_FORM\_METRICS\_ALL table to enable these columns and enter the suggested user names if they aren't already present.

Column to Enable for Calculation	Suggested User or Attribute Name
SRP_COMP_PLAN_ID	Participant plan ID
PLAN_COMPONENT_ID	Plan component ID
PERIOD_ID	Period ID
FORMULA_ID	Formula ID
PARTICIPANT_ID	Participant ID

### Related Topics

- [Incentive Compensation Predefined Functions](#)
- [Create Incentive Expressions with Predefined Functions](#)

## Add Select SQL Queries to the Expression Builder Using the User-Defined Queries Menu

You can create a user-defined query or a select SQL query for plan administrators to use in the incentive compensation expressions to calculate attainments and earnings. Completed queries appear in User-Defined Objects, User-Defined Queries in the UI for the Create Expressions task.

To create and manage user-defined queries and make them available for building expressions:

1. Create a user-defined query.
2. Configure the inputs needed by the user-defined query.
3. Modify and delete user-defined queries.

### Create a User-Defined Query

To create a user-defined query:

1. Create a table validation type value set using these steps:
  - a. In the Setup and Maintenance work area, go to the following:
    - Offering: Sales
    - Functional Area: Incentives
    - Task: Manage Incentive Value Sets
  - b. On the Manage Incentive Value Sets page, create a new value set with these criteria:

Criteria	Value
Validation Type	Table
Module	Incentive Compensation
Security Enabled	Deselect

- c. Select Value Data Type as the output format for the expression.
- d. Enter the select SQL query needed.
- e. Save the value set.

## 2. Create a matching lookup.

- a. In the Setup and Maintenance work area, go to the following:
  - Offering: Sales
  - Functional Area: Incentives
  - Task: Manage Incentive Lookups
- b. On the Manage Incentive Lookups page, search for the Lookup type `ORA_CN_USR_DEFN_EXPRSN_VLE_SET`.
- c. Add a new lookup value with a code that matches the value set code created in step one. In the Expressions UI, the meaning of this lookup value will display as the name of the new user-defined query. The description displays when you select the user-defined query.
- d. Select **Enabled** for the value.
- e. Save the lookup value.

User-defined queries are created using SQL queries. Therefore, be sure to test the calculations and performance of the query on your test environment before you move the queries to production.

## Configure the Inputs Needed by the User-Defined Query

Inputs can be passed to the user-defined query when it's used in the expression builder UI. You define inputs in the WHERE clause of the value set. You can define the sequence of multiple inputs. An explanation of the syntax `WHERE <Table Field Name> = :<Sequence of input to User-Defined Query> /*<Data Type of Table Field>*/` follows:

- Table Field Name: The name of the attribute/column name in the WHERE clause.
- The sequence of the input to the user-defined query: The order of the inputs must be passed to the user-defined query in the Expressions UI. Users must pass consecutive natural numbers starting from 1 (:1, :2, :3).
- Data Type of Table Field Name: The data type of the table name field. The possible entries are:
  - NUMBER or N for all Number fields
  - DATE or D for Date fields
  - VARCHAR2 or V for varchar2 fields

For example, `PARTICIPANT_ID = :1 /*Number*/` includes the following:

1. The table field name is PARTICIPANT\_ID.
2. The sequence of the input to the user-defined query is 1.
3. The data type of the table field name is Number.

The following example shows three attributes defined in the WHERE clause of the value set:

```
Number_Attribute = :1 /*Number*/
AND String_Attribute = :3 /*Varchar2*/
AND Date_Attribute = :2 /*Date*/
```

In the Expressions UI, you must pass the following for the previous example user-defined query: Value Set (21, TO\_DATE('14-Jun-2018','DD-MON-YYYY'), 'World Cup'). The calculation then uses the value set query with the passed inputs as follows:

1. Number\_Attribute = 21
2. Date\_Attribute = '14-Jun-2018'
3. String\_Attribute = 'World Cup'

**Note:** If the same sequence appears twice in the value set, then only the data type of the first usage of the sequence is used.

## Edit and Delete User-Defined Queries

You can edit the SQL query used in a user-defined query or delete the user-defined query entirely only if it's not used in an expression. You must remove the value set from all expressions before you do so. If you delete a user-defined query, be sure to also delete the corresponding lookup.

## Value Set Aggregate Functions in the Expression Builder

Use value set aggregate functions when you want to aggregate a list of values provided by the select SQL query of the user-defined query into a single value.

The expression causes an error in the calculation process if the user-defined query provides a list of values without using a value set aggregate function. If a user-defined query returns a list of values and you don't use a value set aggregation function around it, then the expression will remain valid but the earnings calculation will fail. The description of a user-defined query includes whether it needs an aggregate function. This table provides details about value set aggregate functions.

Detail	Description
Syntax	<p>SUM_VALUE_SET ( User Defined Query()* )</p> <p>COUNT_VALUE_SET ( User Defined Query()* )</p> <p>MAX_VALUE_SET ( User Defined Query()* )</p> <p>MIN_VALUE_SET ( User Defined Query()* )</p> <p>AVG_VALUE_SET ( User Defined Query()* )</p> <p>COUNT_DISTINCT_VALUE_SET ( User Defined Query()* )</p>
Inputs	User-defined query (required) which returns a list of values
Description	It will work similar to the SQL Aggregate Functions SUM, COUNT, MAX, MIN, AVG, and 'COUNT DISTINCT' and will perform the aggregation on the list of values provided by the user-defined query. During calculation, this will add the aggregate function to the Value Column Name text box (within the SELECT clause of the SQL query) of the associated table validated value set.
Example	<p>Target query to add to a user-defined query: <code>SELECT SUM(output_achieved_ptd) FROM cn_srp_per_form_metrics_all</code></p> <p>Perform the following setup steps:</p> <ol style="list-style-type: none"> <li>1. Create this query in the table validated value set of the user defined query called UDQ 1: <code>SELECT output_achieved_ptd FROM cn_srp_per_form_metrics_all</code></li> <li>2. Add the following expression using the expression builder (Manage Expressions in Manage Compensation Plans): <code>SUM_VALUE_SET ( UDQ 1 () )</code></li> </ol> <p>UDQ 1 () could return: 1000, 2000, 3000 while SUM_VALUE_SET ( UDQ 1 () ) would return 6000.</p>

Detail	Description
Expression Usage	Unlike existing aggregate functions, value set aggregate functions don't change the usage of the expression to a per interval or a group-by scenario. Add an existing aggregation function to the user-defined query to do so.
Exceptions	In cases where the user-defined query doesn't return any records, its output will be null. In such cases COUNT_VALUE_SET and COUNT_DISTINCT_VALUE_SET will return 0 while SUM_VALUE_SET, MAX_VALUE_SET, MIN_VALUE_SET, and AVG_VALUE_SET will return null. To avoid these scenarios, it's advisable to use the NVL function around the user-defined query.

This table shows examples of expressions and their usage.

Expression	Usage
<code>Credit.Credit Amount * COUNT_VALUE_SET ( UserDefinedQuery () )</code>	This is a valid expression which can be used in a per event or individual scenario.
<code>SUM (Credit.Credit Amount) - SUM (UserDefinedQuery ())</code>	This is a valid expression. The SUM around the User Defined Query was added to make the expression valid for a per interval or group-by scenario. In this case, the user-defined query returns only one value, otherwise the earnings calculation will produce an error.
<code>SUM (Credit.Credit Amount) + MAX ( SUM_VALUE_SET ( UserDefinedQuery () ) )</code>	This is a valid expression. The SUM_VALUE_SET is added to total the list of values provided by the user-defined query. The MAX around SUM_VALUE_SET is added to make the expression valid for a per interval or group-by scenario

## Best Practices for Creating User-Defined Queries

You can create a user-defined query or a select SQL query to be used by the plan administrators in the incentive compensation expressions to calculate attainments and earnings. Here's a list of best practices when creating user-defined queries.

- Since value sets are also used in descriptive flexfields, you can add a common prefix or suffix for value sets created exclusively for user-defined queries. This prevents confusion about where these value sets can be used. For example, all value set codes for user-defined queries begin with `cnvs: cnvs_get_work_hours` or `CNVS_GET_CONV_RT`.
- Restrict the length of the value set code to 30 characters because the lookup code can only be 30 characters long.
- Provide all information about how to use the user-defined query in the description text box of the lookup. The following table lists the questions you should answer in the description.

Usage Question	Text Example for Description
What does it do?	Gets the year-to-date payment already made to a participant.

Usage Question	Text Example for Description
What does it return?	Returns a string.
What inputs are needed and in what order are they needed?	Pass Participant ID (Number) and Currency Code (String).
Does it need value set aggregation functions?	Use with SUM_VALUE_SET function.
Does it need an NVL function?	Use with NVL function.

- Consider using logical operations to cover your complex IF-THEN-ELSE incentive calculation scenarios. Logical operations are provided in the expression builder and can take user-defined queries as the inputs.
- Use the BI Data Model to validate your Select query.
- In the BI Data Model, generate an Explain Plan to see potential performance and whether you're using an index.
- Make sure your WHERE clause has filter conditions on some database fields that are indexed. This improves performance.
- When you use custom fields for filter conditions, pick the custom field with the most unique data and designate it as indexed when you create the custom field. This improves performance.

*Related Topics*

- [Logical Operations in the Expression Builder](#)
- [Field Types and Field Properties](#)

## FAQs for Tables and Columns

### Enable Attributes for the Expression Builder

Enable attributes in Tables and Columns so they appear in the incentive compensation expression builder.

Go to the Configure Tables and Columns task in the Incentives functional area of the Sales offering. Enable the attribute for calculation and select the appropriate level 2 expression grouping. Also add a user-friendly name for the attribute, which the application displays in the expression builder.



# Earning Types

## Earning Types

Use earning types to determine the form of participant incentives. Monetary Earnings is the only earning type that has monetary value and is included in incentive payment processing.

For example, participants associated with plan components where the Earning Type is Monetary Earnings receive cash compensation for earnings related to these plan components. Use the delivered Monetary Earnings type or create earning types, as required.

You can't delete the earning type Monetary Earnings. You can delete all other earning types as long as they're not associated with any plan component or used in converting other earning types.

### *Related Topics*

- [Company-Defined Earning Types](#)
- [Decimal Precision by Earning Type](#)

## Company-Defined Earning Types

You can create required earning types and associate them with plan components.

The calculation process creates earnings for these plan components, such as 500 Points, and stores them in COMM\_AMT\_CALC\_CURRENCY in the Earnings table.

**Note:** The calculation process doesn't convert nonmonetary earnings, such as Points, to participant home currency or operating currency. It stores the nonmonetary earnings separately in the participant subledger.

Since the payment module doesn't include nonmonetary earnings, you can export those earnings and set their statuses to Posted. Setting the status to Posted ensures that the same nonmonetary earnings aren't included in the next export.

When you run the report for the nonmonetary earning type, such as Points, the participant reports show the earnings in the earning type. Example: The report amount is 500 and the earning type is Points.

Participant reports show only those plan components containing the earning type selected for the report run. Affected reports include:

- YTD (Year-to-Date)
- Earning Details
- Commission Statement

## Decimal Precision by Earning Type

You can set the number of decimal places in the Extended Precision field in the Manage Earning Types UI in Setup and Maintenance.

The default setting for each existing earning type is 18 decimal places. If the Extended Precision field is null, the precision is set to 5 places.

## Open Period Process

### Period Statuses You Can Select

The statuses you can select depend on the current status, as described in this table.

Current Period Status	Available Status Selections
Not Opened	<p>Future Entry or Open</p> <p>You can't change a period status to Open if any prior period status is Not Opened or Future Entry.</p>
Future Entry	<p>Edit this status to Open.</p>
Open	<p>Closed or Permanently Closed</p> <p>You can't edit a period to Closed if:</p> <ul style="list-style-type: none"> <li>Any prior period status is Not Opened, Future Entry, or Open</li> <li>Any trial payment batches are unpaid. Delete or pay the batch first, then close the period.</li> </ul> <p>You can't edit a period to Permanently Closed if any prior period is Not Opened, Future Entry, Open, or Closed.</p>
Closed	<p>Open or Permanently Closed</p>
Permanently Closed	<p>After you permanently close a period, you can't reopen it and the application doesn't process transactions of any kind.</p> <p>Be sure that there are no new transactions, adjustments, payments, or any other outstanding transactions before you permanently close a period.</p>

The Closed status prevents running crediting, rollup, classification, or calculation. This protects the payment amounts from being changed. You can reopen a closed period. You can't reopen it when it's Permanently Closed.

## FAQs for Open Period Process

### Why can't I edit or delete this incentive compensation period?

One or more business units use the period or were opened. Or, deleting this period causes noncontinuous periods, which isn't allowed.

To change details for a period that you assigned to a business unit but haven't opened:

1. Delete the period.
2. Create it again

Make your changes using one of these tasks:

- Manage Periods in the Participant Assignments work area
- Manage Open Period Process in the Setup and Maintenance work area

To edit a period that's in the middle of the year, start from the last period defined.

For example, if the date range for Sep-20 was wrongly defined and requires correction, starting from the last period, Dec-20:

1. Delete the periods Dec-20, Nov-20, and Oct-20.
2. Edit the details for Sep-20.

#### *Related Topics*

### Why can't I see incentive compensation period data in participant reports?

You must select Display period data in participant reports for each relevant period on the Manage Periods page.

Use either of these tasks to open the page:

- Manage Periods in the Participant Assignments work area
- Manage Open Period Process in the Setup and Maintenance work area

## Participant Imports

### Options to Manage Participants

The following sections describe the actions you take when managing participants and the features available to perform those actions. You can determine what features you want to implement.

#### Create Participants

You have the following two methods to create participants:

- Use Run All Participant Processes which includes the Collect Participants and Participant Updates import process.

The Run All Participant Processes process uses your selection rules to create participants. It uses your attribute mapping to collect attributes from the party and the HCM Cloud person work assignment. The selection rules are reusable. You can choose from more than 200 attributes as a source for the participant attribute.

- Use the Import Participants process in the Participant Assignments work area..

The Import Participants process uses a set of filter parameters that you enter each time you submit the process. One advantage of the Import Participants process is that it does allow for participant creation where you can enter a specific party name or person number. The number of filter and target parameters are few but they may be enough for your business process. The Import Participants process is your only option for creating a participant for a specific party.

## Update Participants

You have the following methods to update existing participant data:

- Use the Run All Participant Processes process.

Use the Run All Participant Processes to import any number of files that you have uploaded to the WebCenter folder. The files contain the details to update the existing participants. This process can also collect work assignment changes from HCM Cloud. It uses the participant import mapping to determine what to update on a participant record, and then collects the relevant work assignment attributes and effective dates.

- Use the Import and Update Participant Details process.

The Import and Update Participant Details process will import a single file that you specify from the files that you have uploaded to the WebCenter folder.

- Web Service

You can use the Incentive Compensation Participant Version 2 web service to update participant details or to place and remove the participant payment hold value. It uses the `mergeParticipantDetail`, `holdParticipantPayment`, and `terminateParticipant` methods. Note that there's an existing terminate participant option for just the active end date.

## Terminate Participants

You have the following methods to terminate participants:

- Use the Run All Participant Processes process.

The Run All Participant Processes collects HCM Cloud terminations. It uses the termination date as the active end date and your setup configuration to end date the assignments.

- Web Service

You can use the Incentive Compensation Participant Version 2 web service terminate participants. It uses the `TerminateParticipantAutomated` method.

## Import Participants Parameters

The participants import uses two types of parameters: target and filter. Participants are people or parties who participate in the incentive compensation processes.

A person can either be a participant who's eligible to be assigned to incentive compensation plans or an incentive compensation administrator, such as an analyst or compensation manager. You can import participants using the Import Participants task in the Participant Assignment work area. The eligible participant must already exist as a person in Global Human Resources or a party in Trading Community Model.

You can use two types of parameters when using the Import Participants task.

Parameter Type	Description
Target	The set of values that the imported participant inherits. For example, by selecting Vision Operations as the business unit participant value, all participants imported inherit the Vision Operations business unit.
Filter	The criteria used to select persons and parties for incentive compensation participant import.

## Target Parameters

### Business Unit

Required. Select the destination incentive compensation business unit for the imported participants.

### Participant Home Currency

If this target parameter has a value, then the import process uses it to populate the participant currency attribute. If you don't select a target parameter value, then the import process uses the operating currency from the value you provided using the Manage Parameters task in the Setup and Maintenance work area.

### Analyst Name

If this target parameter has a value, then the import process uses it to assign the analyst to the imported participants. If you don't provide a target parameter value, then you can assign analysts to participants after they're imported using the Participant Assignments work area, Manage Analyst Assignments task.

### Target Country

The import process uses the country defined for the party. For employees, the country is determined from the employee location value. For other parties, the country is determined from the party's identifying (primary) address. If a value isn't defined for the party, then the import process uses the target country parameter value to populate the participant country attribute.

### Active Start Date

If this target parameter has a value, then the import process uses it to populate the participant active start date and the participant attributes effective start date. If you don't provide a target parameter value, then the import process uses the employee start date or the party creation date to populate the participant active start date and the participant attributes effective start date.

### Participant Type

Use the Compensation Administrator participant type when importing compensation analysts and compensation managers. Use the type Participant when importing persons who are eligible to receive incentive credit. Participants can't be deleted. If you imported participants with the incorrect type, then you can update the value using a source file and the Participant Assignments work area, Import and Update Participant Details task.

## Filter Parameters

**Note:** Use filter parameters whenever possible, to avoid importing extraneous participants because there's no way to delete them after import.

### Party Usage

Required. Select the party usage. Party usages are generally assigned to parties by the application used to enter the party. Typical party usages that are eligible participants are HR Employee, HR Contingent Worker, and Partner Contact.

### Party Name

Text input with wildcard support. If you provide a value, then the import process converts the value to upper case and then uses a 'like' comparison to select from the person and party full name value.

### HCM Job

Text input with wildcard support. The import process converts the value to upper case and then uses a 'like' comparison to select persons in Global Human Resources who are assigned to the job. The import process searches for job assignments that are in effect using the import process run date.

### Country

Text input without wildcard support. If you provide a value, then the import process selects parties where the party country matches. For employees, the country is determined by the employee location value. For other parties, the country is determined by the party's identifying (primary) address.

### Start Date

If you provide a value, then the import process selects parties where the party usage effective start date matches. Party usages are generally assigned to parties by the application used to enter the party. The assignment start date is either required by that application or the application enters a default value. For example, the start date for the HR Employee party usage is the hire date. Users assigned to the Party Center Inquiry duty role can view the party usage assignments for all parties.

### End Date

If you provide a value, then the import process selects parties where the party usage effective end date matches.

### Role

Text input with wildcard support. If you provide a value, then the import process converts the value to upper case and then uses a 'like' comparison to select resources who are assigned to the role. Persons are created as resources when they're assigned a resource role in the Create User page or when importing employee resources. The import process searches for role assignments that are in effect according to the import process run date.

### Role Type

Text input without wildcard support. If you provide a value, then the import process selects resources who are assigned to the role associated with the role type. Persons are created as resources when they're assigned a resource role in the Create User page or when importing employee resources. A role is associated with a type when you define the role using the Manage Resource Roles task in the Users and Security function area of the Setup and Maintenance work area.

### Person Number

Text input without wildcard support. If you provide a value, then the import process select persons in Global Human Resources with matching person numbers. A person number is the unique identifier generated by Global Human

Resources when a person is entered. If you're importing parties from the Trading Community Model, then person number isn't available and isn't populated for the participant during import.

## Participant Selection Rules for Importing Participants

The Run All Participant Processes process includes the Collect Participants and Participant Updates process which imports participants.

Use the Manage Incentive Selection Rules task to create rules that select participants to be imported. Choose the Participants import type. You can schedule the process to run periodically.

The rules filter who, out of all HR persons and parties, should have an incentive compensation profile created. You can select HCM persons using work assignment attributes such as business unit and work location. The party attributes are the party usage and country. You can use the resource role and role type for parties that are Sales resources.

You can define one or more sets of selection rules for each incentive compensation business unit. If you plan to select parties that aren't HCM persons, then create a separate rule set just for that purpose. This table describes some of the fields in the UI.

Field Name	Description
Participant Type	The two types are participant and compensation administrator. The participant could be a salesperson or partner. The compensation administrator type is for your analysts and compensation managers. These compensation administrators manage dispute assignments, plan document and payment approval, and access participant information.
Applies If	Determines whether all of the rules in the rule set must be true (All criteria are met) before the person is eligible to be a participant or just one of the rules (Any criterion is met). At the rule level, you select whether all of the rule criteria must be met or any one of the criteria.
Rule Code	Provide a rule name or code for each rule in the set.
Rule Criteria	You build the rules to apply for the selected rule code.
Attribute	The criteria options include attributes for an HCM person's work assignment definition. They're listed in the lookup type ORA_CN_PRTCPNT_CRTRA_OBJS. Those attributes include the business unit, department, job code, job family, job function, position code, and work location. The party country and party usage are associated with parties such as partners. HCM persons are also created as parties. They typically have country values from their work location and usage values that are HR-related such as HR employee. The resource role and role types are typically associated with your sales resources, however other types include marketing and partner resources.

Test your selection rules in a test environment. Participants can't be deleted after import. The selection rules can be exported and imported into your production environment when you're satisfied with your testing results. The rules don't apply to the Import Participants process in the Participant Assignments work area.

## Participant Import Mappings

Run All Participant Processes includes the Collect Participants and Participant Updates process which imports participants. It uses mappings to collect information about the participant from HCM or the trading party record.

The mapping is used when you first collect new participants and when collecting HCM updates to the person's work assignment. HCM must be on the same instance as Sales. Use the Manage Incentive Import Mappings task and choose the Participants import type.

The Participant region of the table is for the target participant and participant detail attributes. You select the source object and related attributes in the Source region. The list of source objects for participant is in the lookup type ORA\_CN\_PRTCPNT\_MAP\_SOURCE. Here's the provided list of source objects:

- Person business unit
- Person legal entity
- Person position
- Person work location
- Person assignment
- Person department
- Person job
- Party

In the Verify Mapping region, you can select a person and click Run Test to view what the participant record will look like according to that person's work assignment. You can then make adjustments to the mapping if needed.

### Attribute Mapping Rules

These rules apply to mapping attributes:

- You can have only one mapping for each incentive compensation business unit.
- A participant attribute can only be mapped to one source attribute.
- If the source object supports flexfields defined within a context, then you can select the source flexfield attribute and context combination.
- You can map attributes from the trading community party but keep in mind that the party record isn't date effective.
- Person department general ledger accounts can be mapped as source attributes. However, when there is more than one set of accounts for a single department, the import process can't distinguish which information to select. In this case, the information isn't collected.
- If the source object attribute is displayed as translated text but stored as a code, then the collection process will also collect the code.
- If you have a participant attribute that can't be mapped, then you can populate the value using import or Web Service.
- Mappings don't apply to the Import Participants task in the Participant Assignments work area.



## Import Future-Dated Employees from HCM

Parameters control whether you can import employees with future hire dates from HCM as participants. The parameters apply to Run All Participant Processes.

As a compensation analyst, you want the on-boarding experience for new hires to be smooth. For example, participants can see their compensation packages on the very first day of work. Employees may also be eligible for draws or guarantees as new hires. Employees are paid from Incentive Compensation and there are times that the payroll cut-off date is before the employee's official hire date. Import employees who are future dated several days in advance. Then you can prepare and review their compensation packages before they start.

### Before you start

In the Participant Parameters region of Manage Parameters, set the **Enable Import of HCM Future Dated Employees** parameter to Yes. Then enter the number of days in the **Maximum Number of Days Prior to Hire Date** parameter. You can change these settings at a later time to disable it or modify the number of days.

**Note:** Select a reasonable maximum number of days. More days means more employees are imported, and some may decide not to join.

Run the process **Run All Participant Processes**.

## Order Imports

### Selection Rules for Importing Orders

Use the Manage Incentive Selection Rules task to create rules that select order data to be imported as incentive compensation transactions. Choose the Orders import type.

The Import ERP Transactions process performs the import according to the rules. You can schedule the process to run periodically.

The rules determine which order fulfillment lines and other associated order data can be imported as transactions. You can only import order lines that have one-time pricing or recurring-pricing models. Selection rules for importing orders work similarly to the participant import. The attributes you can use to filter orders for import are in the lookup type `ORA_CN_ORD_CRTRA_OBJS`:

- Actual Completion Date
- Actual Ship Date
- Business Unit
- Fulfill Line Creation Date
- Fulfill Business Unit
- Item Type Code
- On Hold
- Shippable

- Source Order System
- Status Code

*Related Topics*

- [Participant Selection Rules for Importing Participants](#)

## Order Import Mappings

The Import ERP Transaction process uses defined mappings to bring order data fields into the corresponding transaction data fields. In the Setup and Maintenance work area, use the Manage Incentive Import Mappings task.

Choose the Orders import type. The target region of the table is for the target transaction attributes. The source region is for the order data attributes. The list of source objects is from the lookup type ORA\_CN\_ORD\_SOURCE. Here's the provided list of objects:

- Order Fulfill Lines
- Order Headers
- Order Lines
- Order Charges
- Sales Credits
- Locations
- Item Category

These attributes are for the Order Fulfill Lines object.

### **Order Fulfill Lines Attributes**

Column Name	User Name
COLUMN_NAME	USER_NAME
ACTION_TYPE_CODE	Action Type Code
ACTUAL_COMPLETION_DATE	Actual Completion Date
ACTUAL_SHIP_DATE	Actual Ship Date
BILL_TO_CUSTOMER_ID	Bill to Customer
CANCELED_FLAG	Canceled Flag
CANCELED_QTY	Canceled Quantity
CONTRACT_END_DATE	Contract End Date
CONTRACT_START_DATE	Contract Start Date
CUSTOMER_PO_LINE_NUMBER	Customer PO Line Number
CUSTOMER_PO_NUMBER	Customer PO Number

Column Name	User Name
EXTENDED_AMOUNT	Extended Number
FULFILLED_QTY	Fulfilled Quantity
FULFILLMENT_DATE	Fulfillment Date
FULFILLMENT_MODE	Fulfillment Mode
FULFILL_LINE_ID	Fulfill Line ID
FULFILL_LINE_NUMBER	Fulfill Line Number
HEADER_ID	Header ID
INVENTORY_ITEM_ID	Inventory Item
INVOICEABLE_ITEM_FLAG	Invoiceable Item Flag
INVOICE_ENABLED_FLAG	Invoice Enabled Flag
ITEM_SUB_TYPE_CODE	Item Sub Type Code
ITEM_TYPE_CODE	Item Type Code
LINE_ID	Line ID
LINE_TYPE_CODE	Line Type Code
ON_HOLD	On Hold
ORDERED_QTY	Ordered Quantity
ORDERED_UOM	Ordered UOM
ORG_ID	Org ID
ORIG_SYS_DOCUMENT_LINE_REF	Orig Sys Document Line Reference
ORIG_SYS_DOCUMENT_REF	Orig System Document Reference
PARENT_FULFILL_LINE_ID	Parent Fulfill Line Id
PROMISE_ARRIVAL_DATE	Promise Arrival Date
PROMISE_SHIP_DATE	Promise Ship Date
PURCHASING_UOM	Purchasing UOM
QUANTITY_PER_MODEL	Quantity Per Model
RESERVED_QTY	Reserved Quantity
RMA_DELIVERED_QTY	RMA Delivered Quantity
ROOT_PARENT_FULFILL_LINE_ID	Root Parent Fulfill Line Id
SALESPERSON_ID	Salesperson ID
SALES_PRODUCT_TYPE_CODE	Sales Product Type Code
SCHEDULE_ARRIVAL_DATE	Schedule Arrival Date

Column Name	User Name
SCHEDULE_SHIP_DATE	Schedule Ship Date
SERVICE_CANCEL_DATE	Service Cancel Date
SERVICE_DURATION	Service Duration
SERVICE_DURATION_PERIOD_CODE	Service Duration Period Code
SHIPPABLE_FLAG	Shippable Flag
SHIPPED_QTY	Shipped Quantity
SHIPPED_UOM	Shipped UOM
SHIP_TO_CUSTOMER_ID	Ship To Customer
SOURCE_LINE_NUMBER	Source Line Number
SOURCE_ORDER_NUMBER	Source Order Number
SOURCE_ORDER_SYSTEM	Source Order System
SPLIT_FROM_FLINE_ID	Split From FLine ID
STATUS_CODE	Status Code
TOTAL_CONTRACT_AMOUNT	Total Contract Amount
TOTAL_CONTRACT_QUANTITY	Total Contract Quantity
UNIT_QUANTITY	Unit Quantity
UNIT_SELLING_PRICE	Unit Selling Price

These attributes are for the Order Headers object.

**Order Headers Attributes**

Column Name	User Name
ORDERED_DATE	Ordered Date
ORDER_NUMBER	Order Number
ORDER_TYPE_CODE	Order Type
STATUS_CODE	Order Status Code

This attribute is for the Order Lines object.

**Order lines Attribute**

Column Name	User Name
LINE_NUMBER	Line Number

These attributes are for the Order Charges object.

**Order Charges Attributes**

Column Name	User Name
HEADER_CURRENCY_CODE	Header Currency Code
HEADER_CURRENCY_EXT_AMOUNT	Total Order Line Amount

These attributes are for the Sales Credits object.

**Sales Credits Attributes**

Column Name	User Name
PERCENT	Percent
SALESPERSON_ID	Credited Salesperson ID
SALES_CREDIT_TYPE_ID	Credit Type

This attribute is for the Item Category object.

**Item Category Attribute**

Column Name	User Name
CATEGORY_NAME	Item Category

These attributes are for the Locations object.

**Locations Attributes**

Column Name	User Name
BILL_TO_CITY	Bill to City
BILL_TO_COUNTRY	Bill to Country
BILL_TO_COUNTY	Bill to County
BILL_TO_POSTAL_CODE	Bill to Postal Code
BILL_TO_PROVINCE	Bill to Province
BILL_TO_STATE	Bill to State
SHIP_TO_CITY	Ship to City
SHIP_TO_COUNTRY	Ship to Country
SHIP_TO_COUNTY	Ship to County

Column Name	User Name
SHIP_TO_POSTAL_CODE	Ship to Postal Code
SHIP_TO_PROVINCE	Ship to Province
SHIP_TO_STATE	Ship to State

The import mappings for orders works very much like participant import mappings. These rules apply to order mapping:

- Order Management must be on the same instance as Incentive Compensation.
- You can have only one mapping for each incentive compensation business unit.
- A target attribute can only be mapped to one source attribute.
- Mappings must be present for any required transaction fields and required credit fields.

*Related Topics*

- [Participant Import Mappings](#)

## Invoice Imports

### Selection Rules for Importing Invoices

Use the Manage Incentive Selection Rules task to create rules that select invoice data to be imported as incentive compensation transactions. Choose the Invoices import type.

The Import ERP Transactions process performs the import according to the rules. You can schedule the process to run periodically.

The rules filter which invoice data can be imported as transactions. The attributes you can use to filter orders for import are Business Unit and Transaction Date and can be found in the lookup type ORA\_CN\_INV\_CRTRA\_OBJS. You can import only completed invoices, bills receivable, debit memos, and credit memos along with their corresponding lines and line credits. Subsequent adjustments to invoice aren't imported. Selection rules for importing invoices work similarly to the participant import.

*Related Topics*

- [Participant Selection Rules for Importing Participants](#)

### Invoice Import mappings

The Import ERP Transaction process uses defined mappings to bring invoice data fields into the corresponding transaction data fields. In the Setup and Maintenance work area, use the Manage Incentive Import Mappings task.

Choose the Invoices import type. The target region of the table is for the target transaction attributes. The source region is for the invoice data attributes. The list of source objects is from the lookup type ORA\_CN\_INV\_SOURCE. Here's the provided list of objects:

- Invoice Customer Transactions
- Invoice Lines
- Invoice Lines Credits Salespeople
- Locations
- Customer Accounts
- Parties

These attributes are for the Invoice Customer Transactions object.

***Invoice Customer Transactions Attributes***

Column Name	User Name
CREATED_FROM	Created From
CUSTOMER_TRX_ID	Customer Trx ID
INITIAL_CUSTOMER_TRX_ID	Initial Customer Trx ID
INVOICE_CURRENCY_CODE	Invoice Currency Code
PRIMARY_RESOURCE_SALESREP_ID	Primary Salesrep ID
SHIP_DATE_ACTUAL	Actual Ship Date
STATUS_TRX	Transaction Status
TRX_DATE	Transaction Date
TRX_NUMBER	Transaction Number

These attributes are for the Invoice Lines object.

***Invoice Lines Attributes***

Column Name	User Name
CUSTOMER_TRX_LINE_ID	Customer Trx Line ID
DESCRIPTION	Line Description
EXTENDED_AMOUNT	Invoice Line Amount
INVENTORY_ITEM_ID	Inventory Item
LINE_NUMBER	Line Number
LINE_TYPE	Line Type
PREVIOUS_CUSTOMER_TRX_ID	Previous Customer Trx ID

Column Name	User Name
PREVIOUS_CUSTOMER_TRX_LINE_ID	Previous Customer Trx Line ID
QUANTITY_CREDITED	Quantity Credited
QUANTITY_INVOICED	Quantity Invoiced
QUANTITY_ORDERED	Quantity Ordered
REASON_CODE	Reason Code
REVENUE_AMOUNT	Invoice Revenue Amount
SALES_ORDER	Sales Order Number
SALES_ORDER_DATE	Sales Order Date
SALES_ORDER_LINE	Sales Order Line Number

These attributes are for the Locations object.

**Locations Attributes**

Column Name	User Name
BILL_TO_CITY	Bill to City
BILL_TO_COUNTRY	Bill to Country
BILL_TO_COUNTY	Bill to County
BILL_TO_POSTAL_CODE	Bill to Postal Code
BILL_TO_PROVINCE	Bill to Province
BILL_TO_STATE	Bill to State
SHIP_TO_CITY	Ship to City
SHIP_TO_COUNTRY	Ship to Country
SHIP_TO_COUNTY	Ship to County
SHIP_TO_POSTAL_CODE	Ship to Postal Code
SHIP_TO_PROVINCE	Ship to Province
SHIP_TO_STATE	Ship to State

These attributes are for the Parties object.

**Parties Attributes**

Column Name	User Name
BILL_TO_CUSTOMER_NAME	Bill to Customer Name



Column Name	User Name
SHIP_TO_CUSTOMER_NAME	Ship to Customer Name
SOLD_TO_CUSTOMER_NAME	Sold to Customer Name

The import mappings for invoices works very much like participant import mappings. These rules apply to invoice mapping:

- Accounts Receivable must be on the same instance as Incentive Compensation.
- You can have only one mapping for each incentive compensation business unit.
- A target attribute can only be mapped to one source attribute.
- Mappings must be present for any required transaction fields and required credit fields.

*Related Topics*

- [Participant Import Mappings](#)

## Transaction Selection Rules

### Rules for Selecting Transactions for Crediting

Create selection rules that filter transactions. Crediting processes only transactions that match the criteria.

In the Setup and Maintenance work area, use the Manage Incentive Selection Rules task in the Incentives functional area to create your rules. Choose the Filter Transactions type for your rules.



# 14 Custom Qualifiers and Lookups

## Manage Custom Qualifiers and Lookups

You can create incentive compensation custom rule qualifiers. These qualifiers apply for crediting, classification, and participant role assignment rules. In the Setup and Maintenance work area, use the following tasks.

1. Register Custom Qualifier Tables and Views
2. Manage Incentive Lookups
3. Manage Value Sets for Custom Qualifiers
4. Manage Incentive Descriptive Flexfields
5. Manage Custom Rule Qualifiers

### Register Custom Qualifier Tables and Views

Use registered tables, views, and lookups to dynamically create the **Business Object** choice list on the Create Value Set for Custom Qualifier page. Unregistered objects aren't available in that choice list and can't be used to create a value set. You can register custom objects as well as any lookups where the selected module is **Incentive Compensation**.

### Manage Incentive Lookups

To create an incentive compensation lookup:

1. Start the lookup type with `CN_`.
2. Set the module to **Incentive Compensation**.

**Note:** You can register custom qualifier lookups only when the selected module is **Incentive Compensation**.

### Manage Value Sets for Custom Qualifiers

On the Create Value Set for Custom Qualifier page, you select the business object from a choice list that contains only the registered tables, views, and lookups.

You can also validate whether the value set satisfies your business requirements before creating the custom rule qualifier. To perform the validation:

1. Add a data filter for the new value set.
2. Run a test to see up to the top 100 results for the display column and column ID or column values for the value set.

You can't use value sets created using the common Manage Value Sets task with custom qualifiers.

### Manage Descriptive Flexfields for Custom Qualifiers

When you create a descriptive flexfield, also select **BI Enabled** so that the attribute is available for use in business intelligence dashboards and reports.

## Manage Custom Rule Qualifiers

This task exposes the attribute on the relevant incentive compensation rule and transaction pages, as well as any transaction spreadsheets that you generate after completing the task. Some attributes aren't available in the Name field, for example, transaction attributes like invoice number, order number, and transaction number.

### Related Topics

- [What's the difference between a lookup type and a value set?](#)
- [How Flexfields and Value Sets Work Together](#)
- [Validation Type Options for Value Sets](#)
- [Overview of Value Sets](#)

## Enable Custom Attributes for Crediting and Classification Rules

Your transactions capture custom attributes using descriptive flexfields. You can use the attributes to determine who should receive credit or to classify the transaction. Classification ties a transaction to a specific performance measure on a plan.

Enable a flexfield that uses an LOV to select customer account levels.

1. Create a lookup type and code.
2. Create a value set.
3. Enable the descriptive flexfield segment to be used.
4. Designate and enable the attribute to be used for crediting and classification.

### Create a Lookup Type and Code

Create a value set for a list of values for the attribute. In this example, create a lookup type to store specific lookup codes for the list of values.

1. In the Setup and Maintenance work area, go to the following:
  - o Offering: Sales
  - o Functional Area: Incentives
  - o Task: Manage Incentive Compensation Lookups
2. In the Manage Incentive Compensation Lookups page, create a lookup type by entering these values.

Field	Value
Lookup Type	CUST_ACCT_LVL
Meaning	Customer Account Level
Module	Shared (It can be used everywhere within Incentive Compensation)

Field	Value

3. Save.
4. Create lookup codes by entering these values.

Lookup Code	Display Sequence	Enabled	Meaning
PREMIER	1	Selected	Premier
GOLD	2	Selected	Gold
SILVER	3	Selected	Silver

5. Save.

## Creating a Value Set

1. In the Setup and Maintenance work area, go to the **Manage Incentive Compensation Value Sets** task.
2. In the Manage Incentive Compensation Value Sets page, enter these values.

Field	Value
Value Set Code	CUST_ACCT_LVL_LOV
Description	Restrict data to CUST_ACCT_LVL lookup values
Module	Incentive Compensation
Validation Type	Table
Value Data Type	Character
FROM Clause	FND_LOOKUP_VALUES_VL
Value Column Name	LOOKUP_CODE
Description Column Name	MEANING
ID Column Name	LOOKUP_CODE

Field	Value
WHERE Clause	LOOKUP_TYPE = 'CUST_ACCT_LVL'
ORDER BY Clause	DISPLAY_SEQUENCE

3. Save.

## Enable the Descriptive Flexfield Segment

1. In the Setup and Maintenance work area, go to the **Manage Incentive Descriptive Flexfields** task.
2. In the Manage Incentive Descriptive Flexfields page, search for the flexfield code **CN**.
3. From the result select **Base Transaction and Edit**.
4. Complete these fields to create a new descriptive flexfield global segment.

Field	Value
Name	Customer Account Level
Code	Customer_Account_Level (default)
API Name	CustomerAccountLevel (default)
Data Type	Character
Table Column	ATTRIBUTE11
Value Set	CUST_ACCT_LVL_LOV
BI Enabled	Selected

5. At the Flexfield Summary page, select the flexfield and click **Deploy Flexfield**.

## Designate and Enable the Attribute to Be Used for Crediting and Classification

1. In the Setup and Maintenance work area, go to the **Manage Custom Rule Qualifiers** task.

- In the Manage Custom Rule Qualifiers page, add a new record and enter these values.

Field	Value
Rule Type	Credit and Classification rules
Lookup Type	Fixed Choice List
Qualifier Usage	Global
Qualifier Operators	Select <b>Equal to</b>  <b>Note:</b> Only select the qualifier operators (Equal, Like, Between) that you plan to use. Selecting all or Between impacts performance.
Name	Customer Account Level

Some fields aren't available to be added as custom qualifiers.

- Click **Save and Done**.

**Note:** After you save your custom rule qualifier, you can edit the qualifiers to add more operators for a specific business unit.

- In the Setup and Maintenance work area, go to the **Configure Tables and Columns** task.
- In the Configure Tables and Columns page, make sure you are pointing to the correct business unit.
- Select the table **CN\_TP\_TRANSACTIONS\_ALL**.
- Confirm the check boxes for crediting and classification are enabled for the Customer Account Level attribute.

**Tip:** The User Name field for the attribute column is blank. If you plan to also use this attribute column in expressions, then give it a name.

- Save.





# 15 Enterprise Scheduler Job Definitions and Job Sets

## Enterprise Scheduler Job Definitions and Job Sets

### Overview of Managing Job Definitions and Job Sets

Users run scheduled processes based on jobs to process data and, in some cases, to provide report output.

Each job has a job definition which, for example, determines the parameters that users can set. Jobs are based on Oracle Enterprise Scheduler Services. Using Enterprise Scheduler Jobs tasks, you can define job definitions, list of values sources, and job sets.

- **Job Definitions:** Contain the metadata about the job and the options available to users. A job definition is defined by a job type, such as Oracle Analytics Publisher or PL/SQL Job type or others.
- **List of Values Sources:** Determine where a list of values for the parameters in a job definition comes from and what the specific values are.
- **Job Sets:** Collections of several jobs in a single process set that the users submit instead of running separate jobs.

The various Enterprise Scheduler Jobs tasks are:

- Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications
- Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications
- Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications

In the Setup and Maintenance work area, you can find these tasks in the Application Extensions functional area, or, depending on your offering, another functional area. If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level in the Offerings work area.

#### *Related Topics*

- [Job Definitions](#)
- [Manage List of Values Sources](#)
- [Job Sets](#)
- [What are the scheduled processes?](#)
- [Configure Offerings](#)
- [Best Practices for Scheduled Processes in Fusion Applications](#)

## Manage List of Values Sources

A list of values source for job definitions determines where a list of values comes from and what the specific values are. Users can select from the list when they set parameters.

For example, the list of values for a Country parameter gives users a list of countries to choose from. You can create list of values sources to use in job definitions that you or someone else created. Parameters in predefined job definitions can have lists of values too, but not from list of values sources that you can manage. But if you duplicate a predefined job definition, list of values sources might be automatically created for your new job definition. You can manage those sources as you would a source that you created yourself.

Here's how you get started to create, edit, or delete list of values sources:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

**Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. Click the Manage List of Values Sources tab. If you don't see anything here, that just means you haven't created any sources or duplicated any predefined job definitions that would result in automatically creating list of values sources.
3. Go on to create or edit list of values sources.

### Create List of Values Source

Create a source based on predefined view objects or your own SQL query.

- For predefined view objects, contact your help desk to find out if there are any that meet your needs. And to get the view object's full path, which you enter when creating the list of values source.
- For your own SQL query, you can see the Tables and Views guides for more information, if you want to base the list of values source on a specific table or view.

Your list of values source might behave differently from similar sources used in predefined jobs. There are some limitations to creating custom sources. For example, you can't add new filtering criteria or configure the search.

1. On the Manage List of Values Sources tab, click the **Create** icon.
2. In the Create List of Values Source dialog box, select something from the **Application Name** list that's related to your list of values. If you don't know what to select or can't find anything that applies, just select **Application Toolkit**.
3. In the **User List of Values Source Name** field, enter a name that helps you identify your list of values source.
4. From the **LOVType** list, select **Predefined** to use a view object or **User Defined** to use a SQL query.
5. If you selected Predefined, then in the **List of Values Source Definition Name** field, enter the full path of the view object that your help desk provided.

If you selected User Defined, enter your own SQL in the **Query** field.

- Your query can't have any aggregate function like DISTINCT, SUM, MAX, or AVG in the direct select clause. It can't have UNION, UNION ALL, INTERSECT, or MINUS either.
- If you absolutely need to use any of those functions, you need to wrap the query in another select clause. Here are a couple examples:

Don't Use This	Use This Instead
<pre>SELECT DISTINCT CHANNEL.MEANING MEANING FROM FND_LOOKUP_VALUES_TL</pre>	<pre>SELECT MEANING FROM (SELECT DISTINCT MEANING MEANING FROM FND_ LOOKUP_VALUES_TL) ;</pre>
<pre>select lookup_code as LookupCode from fnd_lookup_ values_b where lookup_ type='EXM_REPORT_STATUS' UNION select 'NULL' as LookupCode from dual</pre>	<pre>SELECT LOOKUPCODE FROM (select lookup_code as LookupCode from fnd_ lookup_values_b where lookup_type='EXM_REPORT_STATUS' UNION select 'NULL' as LookupCode from dual)</pre>

6. Make sure everything looks fine and then click **Save and Close**. You can't change most of the things about your source after you create it.

## Edit or Delete List of Values Source

Here are some things to know about editing and deleting list of values sources, which you can do on the Manage List of Values Sources tab.

- You can edit only the application name and description.
- When you delete a list of values source, you can't find it and manage it any more, but it's not really gone. Any job definitions using that source can continue using it. So after you delete a source, you can't create another one later with the same name, even though you won't be able to find the deleted one. To avoid confusion, it's recommended that you don't ever delete any list of values source. Just create new ones as needed, with unique names.

### Related Topics

- [How do I update existing setup data?](#)
- [Configure Offerings](#)

# Job Definitions

## Job Definitions

Scheduled processes are based on jobs that process data and, in some cases, provide output. Each job requires a job definition. A job definition can also include parameters and user properties that the user defines while submitting the scheduled process.

You are encouraged to use predefined scheduled processes as is, so usually you don't need to do anything with job definitions. But if you do need something specific to your needs, you can create Oracle Analytics Publisher reports as the basis for custom jobs, and create job definitions for those custom jobs. You can also duplicate predefined job

definitions and edit your copy, mainly to update the parameters. But, usually you wouldn't duplicate predefined job definitions. Some of them can't be duplicated anyway, and there are many limitations to consider with the duplicate.

To view, create, edit, or duplicate job definitions, use the Manage Job Definitions tab on the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, here's where you go to open that page:

- Functional Area: Application Extensions a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

## Viewing Job Definitions

Use the table on the Manage Job Definitions tab to view the job definitions created for the application. An asterisk in the name column indicates a predefined job definition. Not all job definitions are shown. You always see only the ones you have access to, and only the first 100 are shown when you open the tab.

**Tip:** Use Query by Example to find the job definition you're looking for, even those not shown in the table by default.

This table describes the columns in the table on the Manage Job Definitions tab.

Column Name	Description
Name	Name of the job definition.
Display Name	Name of the job definition as available to users while submitting scheduled processes.
Description	Description for the job definition.
Path	The full directory path where the job definition is saved.
Execution Type	The type of job request for the given job definition, such as a Java, C, PL/SQL, Perl, or hosted script job.
Job Type	<p>The name of the job type that the job definition is based on.</p> <ul style="list-style-type: none"> <li>• BIPJobType: Jobs that run as Oracle Analytics Publisher reports</li> <li>• CJobType: Jobs that are implemented in C and run in the container</li> <li>• HostJobType: Jobs that run as as host scripts executed from the command line</li> <li>• JavaJobType: Jobs that are implemented in Java and run in the container</li> <li>• PerlJobType: Jobs that are implemented in Perl and run in the container</li> <li>• PlsqlJobType: Jobs that run as PL/SQL procedures stored in a database server</li> <li>• SqlldrJobType: Jobs that are implemented in SQL*Loader and run in the container</li> <li>• SqlplusJobType: Jobs that are implemented in SQL*Plus and run in the container</li> </ul> <p><b>Note:</b> If you create a brand new job definition (not by duplicating an existing one), the only job type you can use is BIPJobType.</p>

## Parameters

A parameter controls which records are included or how they are affected when the job runs. Parameters are available to users when they submit scheduled processes based on your job definitions. For example, a job updates only the records that are effective after the date that users enter in a Start Date parameter. You can create, edit and delete parameters for job definitions that are not predefined.

## User Property

A user property is set in the job definition to attain some specific results.

### Related Topics

- [Create Job Definitions to Run Reports as Scheduled Processes](#)
- [Edit Job Definitions](#)
- [What are the scheduled processes?](#)
- [Use Query By Example](#)

# Create Job Definitions to Run Reports as Scheduled Processes

Every job definition has a job type that reflects the executable for the job, such as Java or Oracle Analytics Publisher reports. You can only create job definitions that are based on Analytics Publisher reports.

When there's a job definition for an Analytics Publisher report, users can run the report as a scheduled process in the Scheduled Processes work area. Otherwise, they can open reports (which are set up to be run online) elsewhere, for example in the Reports and Analytics work area.

**CAUTION:** Make sure your user name doesn't contain any spaces. If you create a custom job definition using a user name that contains spaces, other users might get errors when they submit this custom job definition.

## Create Job Definitions

Here's how you create a job definition for an Analytics Publisher report:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

**Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, click the Manage Job Definitions tab.
3. Click the **Create** icon.
4. Fill in the Job Definition section.

Field or Check Box	What You Do
Display Name	Enter the name that users see and select to submit the scheduled process.

Field or Check Box	What You Do
Name	Enter a name with only alphanumeric characters, for example, <b>AtkEssPrograms1</b> . It can't have spaces or any special characters.
Job Application Name	Select the application to associate the job definition with. What you select depends on the task you're using. <ul style="list-style-type: none"> <li>○ Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications: Select <b>CrnEss</b>.</li> <li>○ Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications: Select <b>FscmEss</b>.</li> <li>○ Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications task: Select <b>EarHcmEss</b>.</li> </ul>
Enable submission from Enterprise Manager	Make sure you don't select this check box.
Job Type	Select <b>BIPJobType</b> . Don't select any other type.
Default Output Format	Select the output format users get by default when they submit the scheduled process.
Report ID	Enter the path to the report in the BI catalog, starting with the folder within Shared Folders, for example: <b>Custom/&lt;Family Name&gt;/&lt;Product Name&gt;/&lt;Report File Name&gt;.xdo</b> .  Make sure to include the <b>.xdo</b> file extension for the report definition.
Enable submission from Scheduled Processes	Leave the check box selected.

5. In the Parameters subtab, you can define parameters that are available to users when they submit the scheduled process based on your job definition.
6. In the User Properties subtab, don't create or edit a user property unless you have the accurate information that's required to create or edit one. The `EXT_PortletContainerWebModule` user property is automatically created.
7. Click **Save and Close**.

When you create a job definition, a privilege with the same name as the job definition is automatically created with a Run prefix. For example, for a job definition named MyProcess1, with display name My Process, the privilege code is RUN\_MYPROCESS1, with Run My Process as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process can do so.

### Related Topics

- [Define Parameters for Job Definitions](#)
- [Manage List of Values Sources](#)
- [Edit Job Definitions](#)
- [How do I update existing setup data?](#)
- [Configure Offerings](#)

## Duplicate Job Definitions

A parameter controls which records are included or how they are affected when a job runs. Job definitions can have one or more parameters or none at all.

1. However, usually you wouldn't duplicate predefined job definitions. Some of them can't be duplicated anyway, and there are many limitations to consider with the duplicate. If you're duplicating a predefined job definition, make sure you test the duplicate carefully because it might not work exactly like the original.

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

**Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, click the Manage Job Definitions tab.
3. On the Manage Job Definitions tab, select a job definition with any job type.
4. Click **Duplicate** to get another row in the table with the duplicate job definition.
5. Select the duplicate job definition and click **Edit**.
6. Enter the name and path.
7. Update the parameters if you need to. Make sure that all mandatory parameters are populated properly.
8. Click **Save and Close**.

### Results:

When you create a job definition by duplicating, a privilege with the same name as the duplicate job definition is automatically created with a Run prefix. For example, for a job definition named MyProcess1, with display name My Process, the privilege code is RUN\_MYPROCESS1, with Run My Process as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process can do so.

You also automatically create a view object with the same name in the list of values sources. Validations for the attributes in the parameters view object aren't copied over.

### Related Topics

- [Define Parameters for Job Definitions](#)
- [How do I update existing setup data?](#)
- [Configure Offerings](#)

## Edit Job Definitions

You can only edit certain fields in predefined job definitions, as some of the fields are read only. However, you can edit all aspects of job definitions that are not predefined.

### Editing Job Definitions

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

**Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, open the Manage Job Definitions tab.
3. Select the job definition you want to edit.
4. Click **Edit**.
5. Make the changes that you want, for example:
  - o You can edit the display name of the job definition to use terms that are more familiar to your users.
  - o You can use the **Prompt** field to edit parameter display names.
6. Click **Save and Close**.

### Predefined Job Definitions

You cannot update parameters in predefined job definitions, but this table lists some of the other fields that you can edit.

Field	Description
Retries	The number of times to automatically run this job again if the scheduled process fails.
Job Category	Specific to the application of the job definition, it's used to group definitions according to your requirements.
Timeout Period	The amount of time before stopping a scheduled process that couldn't complete.
Priority	Priority of scheduled processes submitted, with 0 as lowest. If other processes, based on the same or another job, are scheduled to run at the same time, then priority determines the run order.



*Related Topics*

- [Job Definitions](#)
- [Create Job Definitions to Run Reports as Scheduled Processes](#)
- [How do I update existing setup data?](#)
- [Configure Offerings](#)

## Define Parameters for Job Definitions

A parameter controls which records are included or how they are affected when a job runs. Job definitions can have one or more parameters or none at all.

You define parameters while creating or editing job definitions using the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

When users run the scheduled process for job definitions of type BIPJobType, the values they enter for the parameters determine the data to be included in the report. Also, the values are passed to the data model that the report is using.

The parameters that you define must be in the same order as parameters in the data model for the report. For example, the data model has parameters in this order:

- P\_START\_DATE
- P\_END\_DATE
- P\_CURRENCY

You create parameters as follows:

- Start Date
- End Date
- Currency

### Defining Parameters: Job Definitions

To define parameters while creating or editing job definitions:

1. On the Manage Job Definitions page, open the Parameters sub tab.
2. Click **Create**.
3. Enter the parameter prompt that users see when they submit the scheduled process.
4. Select a data type and configure how the parameter and the data entered are displayed, as described in this table.

Data Type	Fields
Boolean	Select this if you want the parameter to be a check box.  Select <b>True</b> or <b>False</b> to determine if the check box is selected or not.

Data Type	Fields
Date or time	<p>Select <b>Date and time</b> or <b>Date only</b> option.</p> <p>Select a value from the <b>Default Date Format</b>.</p> <p><b>Note:</b> Make sure the format you select here is the same as the format used for the job. If the job definition type is BIPJobType, select <b>yyyy-MM-dd</b>, and make sure the data model for the corresponding Oracle Analytics Publisher report is using the same date format.</p>
Number	<p>Select a <b>Number Format</b>.</p> <p>Select <b>Left</b> or <b>Right</b> for data alignment.</p>
String	<p>Select a <b>Page Element</b>.</p> <p>Select <b>Text box</b> if you want the user to provide a text.</p> <p>Select <b>Choice list</b> if you want a list with limited options (maximum 10). If there are more than 500 values, users will get an error when they try to set the parameter as part of submitting the scheduled process.</p> <p>Select <b>List of values</b> if you want a list with unlimited options with a search facility.</p>

5. Select the **Read Only** check box if you don't want to enable users to set this parameter. When a parameter is set as read only, the user is required to provide a default value to be passed to the job definition.
6. If you select list of values or choice list page element, select a **List of Values Source** and an **Attribute**. Use the list of values sources from the Manage List of Values Sources tab. Don't define lists of values in the data model that the report is using.
7. From the list of available attributes, select the attributes you want to appear in the list and move them to the selected attributes section. These attributes determine the values that the user can see.
8. Define a **Default Value** for the parameter.
9. In the **Tooltip Text** field, provide additional information for the user to follow.
10. Select the **Required** check box if users must set this parameter to submit the scheduled process.
11. Select the **Do not Display** check box if users should not see this parameter while submitting the process.
12. Click **Save and Create Another** or **Save and Close**.

## Dependent Parameters

The attributes of some parameters depend on the attributes or values of certain other parameters. The attributes of a parameter would change if the value of its dependent parameter changes.

For example, you have three parameters, namely Country, State and, City. In this case, the value of the Country parameter would determine the values available in the State parameter. The values in the State parameter would determine the values available in the City parameter.

*Related Topics*

- [Create Job Definitions to Run Reports as Scheduled Processes](#)
- [Define Dependent Parameters in Job Definitions](#)

## Define Dependent Parameters in Job Definitions

This example demonstrates how to define dependent parameters.

This table summarizes key decisions for this scenario.

Decisions to Consider	In this Example
Which parameters do I want to make dependent?	<p><b>Region, Country and City.</b></p> <p><b>Region</b> list of values includes the names of the regions like North America, EMEA, JAPAC and so on. The <b>Country</b> list of values includes the names of countries like USA, Canada, France, England, India, Japan and so on. Similarly <b>City</b> list of values includes the names of different cities like New York, Washington, London, Paris, Mumbai, Tokyo and so on. The <b>Country</b> parameter list of values includes only the countries like USA, Canada and so on, if user selects North America. The <b>City</b> parameter list of values includes the names of the cities in the country that the user has selected.</p>
What are view criteria?	<p>The view criteria determine the values that appear in the dependent parameter list of values for the users to see. The view criteria are used to filter the list and pass the required bind variables based on the user's selection.</p> <p>To filter countries based on the selected region, you must select <code>getCountriesByRegion</code> and pass <b>Region</b> as a bind variable.</p>

### Prerequisites

Create the parameters **Region, Country and City**. The values available to the users in the Country parameter list of values depends on the value selected for the Region parameter. City parameter list of values depends on the value that the user selects for the Country parameter.

### Defining Dependent Parameters

To define parameters with dependent lists of values:

1. On the Manage Job Definitions tab, open the Parameters sub tab.
2. Select the **Region** parameter.
3. Click the **Manage Dependencies** button located next to the **Delete** button.
4. From **Available View Criteria**, select `getCountriesByRegion` and move it to **Selected View Criteria** using the move icons.

The selected view criteria appears in the Bind Variables section.

5. In the Bind Variables section, for the `getCountriesByRegion` view criteria, select **Country** from the mapped parameters list of values.

The Country parameter list of values is now dependent on the value selected for the Region parameter.

6. Click **OK**.

7. Repeat the steps with **Country** parameter. Select `getCitiesByCountries` from the available view criteria and pass **City** as a bind variable.

#### Related Topics

- [Define Parameters for Job Definitions](#)
- [Create Job Definitions to Run Reports as Scheduled Processes](#)
- [Create Job Sets](#)
- [Manage List of Values Sources](#)

## Job Sets

### Job Sets

A job set is a collection of several jobs in a single process set that the users can submit instead of running individual jobs separately.

The job set definition also determines if the jobs run in serial or parallel, or based on some other predetermined logic. In the Setup and Maintenance work area, go to the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

Use the Manage Enterprise Scheduler Job Definitions and Job Sets page to open the Manage Job Sets tab.

- On this tab, you can view and define job sets, and use Query By Example to find a specific job set.
- You can't edit or delete the predefined job sets which are indicated by an asterisk. You can create job sets, and also edit and delete job sets that are not predefined.

### Job Set Steps

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. Each individual job or job set that's included within a job set is called a job set step. A job set and each of its job set steps can have additional parameters. Users provide the values for these parameters when they submit the process set.

### Application Defined Properties

Some Job Sets require the user to enter certain additional properties before submitting a job request. Application Defined Properties are the additional properties that the user has to enter during runtime. For example, when `enableDuplicateJobWithParamTaskflow` property is set to **True**, it can be used to run a single job multiple times with different parameter values, within a job set.

### System Properties

System Properties are the additional settings that determine how a job set runs. For example, you can use a system property to determine the number of retries for a job set that fails to execute. On this tab, you can view and define job sets, and use Query By Example to find a specific job set.

*Related Topics*

- [Create Job Sets](#)
- [System Properties for Job Sets](#)
- [Overview of Managing Job Definitions and Job Sets](#)

## Create Job Sets

Create a job set so that users can run multiple jobs with a single submission.

Before you create the job set, plan the sequence and hierarchy of the job steps within the job set. You can create job sets using the Manage Job sets tab. You can also edit and delete job sets that are not predefined.

### Steps to Create Job Sets

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Enterprise Scheduler Job Definitions and Job Sets** task in the Application Extensions functional area. Or, depending on your offering, you might use a different functional area.

**Note:** If you don't see the task, make sure that the Enterprise Scheduler Job Definitions and Job Sets feature is enabled at the offering level.

2. On the Manage Enterprise Scheduler Job Definitions and Job Sets page, open the Manage Job Sets tab.
3. Click **Create**.
4. Complete the fields as shown in this table.

Field	Description
Name	Provide a name with only alphanumeric characters, for example, <code>ExportMetadataTables1</code> .  <b>Note:</b> A job set name can't have space or any special character.
Display Name	Provide a name that the users see while submitting the scheduled process.
Description	Provide more information about what the job set does.
Package	Specify the path where you want to save the job set.

5. In the Job Set Steps section, select **Serial** or **Parallel** to define the sequence of the job set.
6. Click **Add Job Set Step** to open the Add Step dialog box.
7. In the Step tab:

- a. Enter a **Step ID** to easily identify the steps.
- b. Search for and select a job or job set to include in your job set.
- c. Select **Job definition** or **Job set**.
- d. Type a valid name or package, or both of the Job or Job Set you are looking for and click search.
- e. Select the required job definition or job set and click **OK**.
- f. If you selected Parallel in step 4:
  - Select **Insert into main diagram** if you want the step to be executed independently.
  - Select **Add to list of available steps** if you want the step to be one of the outcomes in the available steps.
  - If you choose to add the step to the list of available steps, select an option for the possible job outcomes. For example, you can determine whether the process must stop or another step must be executed if the step fails to run successfully.

**8. In the Application Defined Properties tab:**

- a. Click **Add Application Defined Property** icon and select a data type.
- b. Enter a name and an initial value.
- c. Select the **Read Only** check box if you don't want users to update this property when they submit the process set.
- d. Click **OK**.

**9. In the System Properties tab:**

- a. Click **Add System Property**.
- b. From the name list, select a system property.
- c. Enter a value in the **Initial Value** field.
- d. Select **Read Only** check box if you don't want users to update this property when they submit the process set.
- e. Click **OK**.

**Note:** You can also add and edit the Application Defined Properties and System Properties in the respective sections on the Create Job Set page.

10. Click **OK** to add the Job Set Step.
11. Add jobs and job sets as required. You can select job steps in the Job Set Steps section and edit, remove, or reorder (for Serial only). You can also switch between **Serial** and **Parallel**.
12. Click **Save and Close**.

**Note:** When you create a job set, a privilege with the same name as the job set is automatically created with a Run prefix. For example, for a job set named ExportAppsData, with display name Export Application Data, the privilege code is RUN\_EXPORTAPPSDATA, with Run Export Application Data as the name. Make sure to use the Security Console to assign this privilege to roles so that users who need to run the process set can do so.

*Related Topics*

- [Job Sets](#)
- [System Properties for Job Sets](#)
- [Overview of Managing Job Definitions and Job Sets](#)
- [How do I update existing setup data?](#)
- [Configure Offerings](#)

## System Properties for Job Sets

System Properties are the additional settings that determine how a job set runs. For example, you can use a system property to determine the number of retries for a job set that fails to execute.

You can open the Manage Job Sets tab using the Manage Enterprise Scheduler Job Definitions and Job Sets page. In the Setup and Maintenance work area, use the following:

- Functional Area: Application Extensions or a product-specific functional area
- Task: Manage Enterprise Scheduler Job Definitions and Job Sets

### System Properties

This table lists some system properties with description.

System Property Name	Description
<code>SYS_allowMultPending</code>	Specifies if the same job definition can have multiple pending requests.
<code>SYS_application</code>	Specifies the logical name of the Scheduling Services folder application used for request processing. Oracle Enterprise Scheduler automatically sets this property during request submission.
<code>SYS_effectiveApplication</code>	Specifies the logical name of the Scheduling Services folder application that is the effective application used to process the request. You can associate a job definition, job type, or a job set step with a different application by defining the <b>EFFECTIVE_APPLICATION</b> system property. This property can only be specified through metadata and cannot be specified as a submission parameter.
<code>SYS_priority</code>	Specifies the request processing priority. The priority interval is 0 to 9, where 0 is the lowest priority and 9 is the highest. If this property is not specified, the default value used is 4.
<code>SYS_product</code>	Specifies the product used for submitting the request.
<code>SYS_request_timeout</code>	Enables the job request to time out.
<code>SYS_requestExpiration</code>	Specifies the expiration time for a request. This represents the time (in minutes) that a request will expire after its scheduled execution time. An expiration value of zero (0) means that the request never expires. If this property is not specified, the default value used is 0.

System Property Name	Description
	Request expiration only applies to requests that are waiting to run. If a request waits longer than the specified expiration period, it does not run. After a request starts running, the request expiration no longer applies.
<code>SYS_retries</code>	Specifies the retry limit for a failed request. If request execution fails, the request is retried up to the number of times specified by this property until the request succeeds. If the retry limit is zero (0), a failed request is not retried. If this property is not specified, the default value used is 0.

*Related Topics*

- [Job Sets](#)
- [Create Job Sets](#)

## FAQs for Enterprise Scheduler Job Definitions and Job Sets

### Why can't I see certain job definitions, and how do I find them?

In the table on the Manage Job Definitions tab, not all job definitions are shown. You always see only the ones you have access to, and only the first 100 are shown when you open the tab.

Use Query by Example to find what you're looking for, even the job definitions that aren't shown in the table by default.

*Related Topics*

- [Use Query By Example](#)

### What do I select for job application name when I create a job definition?

What you select from the **Job Application Name** list depends on the setup task you're using.

- Manage Enterprise Scheduler Job Definitions and Job Sets for Customer Relationship Management and Related Applications: Select **CrnEss**.
- Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications: Select **FscmEss**.
- Manage Enterprise Scheduler Job Definitions and Job Sets for Human Capital Management and Related Applications task: Select **EarHcmEss**.



## Can I use a table value set as the list of values for a parameter?

No, you should create a list of values source instead to provide the same values for the parameter.

## How can I restrict user access so that they can run only custom scheduled processes?

You can try creating a custom role with the Manage Scheduled Processes (FND\_MANAGE\_SCHEDULED\_PROCESSES\_PRIV) privilege to give access to the Scheduled Processes work area, along with the privileges that are automatically created when you create a job definition or job set.

**Note:** You need to test the custom role to make sure it doesn't have any roles or privileges that give access to predefined processes.

## Troubleshoot Processes

### Debug Option for Processes

You can troubleshoot incentive compensation processes and investigate errors. Set the Enable Debug Mode profile option to Yes. Then every process generates detailed log messages. The Scheduled Processes navigator selection or View Processes task in any work area opens the list of processes run.

**Tip:** Set the profile option at the user level so it doesn't create logs for everyone who runs incentive compensation processes.

## What can I do when I have too many older process audit log files?

You can purge process log files that are older than 45 days by running the Purge Incentive Compensation Process Audit Logs process.

Use the Scheduled Processes task in the Tools menu to start the purge process. If you have log files left after running the process, then run it again. It runs for a limited time.

## Assign Roles for Access to Manage Scheduled Processes

Users can view and manage the scheduled processes that they submit, for example, to cancel the process or see the output. But, if they need to do that for processes other people submitted, they need certain roles.

Here are the roles and what they let users do with scheduled processes that anyone submitted.

Role Name	Role Code	View	Update	Cancel	See Output	Republish Output
ESS Operator Role	ESSOperator	Yes	No	No	No	No
ESS Monitor Role	ESSMonitor	Yes	No	No	No	No
ESS Administrator Role	ESSAdmin	Yes	Yes	Yes	No	No
BI Administrator Role	BIAdministrator	No	No	No	Yes	Yes

You can use the Security Console to create a custom role that has the needed roles, and assign the custom role to the user. Usually it's best to give access just by giving users the needed roles.

- But, in some cases you might need to give additional access to specific tasks. For example, someone with ESS Monitor Role can see scheduled processes from others, but they also need to put processes on hold. And you don't want to give them the ESS Administrator Role because that would be too much access.
- Another case is that a user should not have access to all processes, but they still need to do certain tasks for some processes.

In these cases, the custom role you assign to users should have a data security policy, which gives users access to certain tasks. Here are the actions you should choose from for the policy, for the specific tasks you want to give users access to.

Action	Description
ESS_REQUEST_CANCEL	Cancel processes.
ESS_REQUEST_HOLD	Put processes on hold.
ESS_REQUEST_OUTPUT_READ	See the output from processes.
ESS_REQUEST_OUTPUT_UPDATE	Update the output from processes, for example to change what output you want if the process hasn't started running yet.

Action	Description
ESS_REQUEST_READ	Access processes and view details.
ESS_REQUEST_RELEASE	Release processes that were put on hold.

## Access for All Scheduled Processes

Here's how you give someone access to manage all processes:

1. On the Roles page in the Security Console, click **Create Role**.
2. On the Create Role: Data Security Policies page, create a data security policy only if you need to give access to specific tasks.
  - a. For the **Data Resource** field, select **ESS\_REQUEST\_HISTORY**.
  - b. For the **Data Set** list, select **All Values**.
  - c. For the **Actions** list, select any of the tasks that you want to give access to.
3. On the Create Role: Role Hierarchy page, add any of the needed roles.
4. On the Create Role: Users page, enter the users you want to assign this custom role to.

## Access to Do Certain Tasks for Specific Processes

Say you don't want to give users access to all scheduled processes. When you create the custom role, instead of selecting a role like ESS Monitor Role, you enter a condition that controls what processes are included. You first create the condition in a data resource:

1. On the Administration page in the Security Console, click **Manage Database Resources** on the General tab.
2. On the Manage Database Resources and Policies page, search with **ESS\_REQUEST\_HISTORY** in the **Object Name** field.
3. In the Search Results table, select the ESS\_REQUEST\_HISTORY database resource and click **Edit**.
4. On the Edit Data Security page, click the Condition tab.
5. On the Condition tab, click the **Create** icon.
6. In the Create Database Resource Condition dialog box, select **SQL predicate** for the **Condition Type** option.
7. In the **SQL Predicate** field, enter SQL that determines what processes to give access to, for example:

```

EXISTS
(select 1 from dual)
and DEFINITION in (
'JobDefinition://oracle/apps/ess/hcm/users/SyncRolesJob'
)
    
```

8. Save your work.

Now you're ready to create your custom role and assign it to users:

1. On the Roles page in the Security Console, click **Create Role**.
2. On the Create Role: Data Security Policies page, create a data security policy.
  - a. For the **Data Resource** field, select **ESS\_REQUEST\_HISTORY**.
  - b. For the **Data Set** list, select **Select by instance set**.
  - c. For the **Condition Name** list, select the condition you created.

- d. For the **Actions** list, select **ESS\_REQUEST\_READ** so users can access the process in the first place. Include any other action that you want to give access to. For example, if the user needs to see output, select **ESS\_REQUEST\_OUTPUT\_READ** too.
3. On the Create Role: Users page, enter the users you want to assign this custom role to.

*Related Topics*

- [Create Roles in the Security Console](#)

## Allow Updates to Scheduled Process Priority

Every scheduled process has a default priority, from 0 to 9. When many scheduled processes are submitted, those with a lower number, for example 2, would usually run before those with a higher number, for example 7.

1. You can set the **Scheduled process priority change allowed** (ESS\_ALLOW\_CHANGE\_PROCESS\_PRIORITY) profile option so that administrators can change the priority for specific submissions.
1. In the Setup and Maintenance work area, use the **Manage Applications Core Administrator Profile Values** task in the Application Extensions functional area. Set the **Scheduled process priority change allowed** profile option to **Yes** at the Site level.
2. In the Security Console, create a custom role that has the ESS Administrator Role (EssAdmin), and assign it to administrators who should have access to change priorities. Or, ask your security administrator to do this.

*Related Topics*

- [Set Profile Option Values](#)
- [Assign Roles for Access to Manage Scheduled Processes](#)

# 16 Other Common Setup and Maintenance Tasks

## Home Page Setup

### Define Home Page Appearance

Use the Themes tab in the Appearance work area to first select your home page layout and then define its display settings. And then use the Home Page Display tab to define the display settings of your home page.

Based on the home page layout you're using, the options available on the Home Page Display page may vary.

Let's see how to define the home page appearance.

1. Activate a sandbox that has the Appearance tool in it.
2. Click **Navigator > Configuration > Appearance**.
3. Click the Home Page Display tab.
4. In the **Name** column of the table, click any section name to rename it.
5. Click the **Visible** field for a section to change its visibility setting. You can show or hide the section on the home page.
  - o Yes: The section appears on the home page.
  - o No: The section doesn't appear on the home page.
  - o EL expression: The evaluation of the EL expression decides whether the section appears on the home page for specific user roles.
6. In the **Order** column, use the **Move Up** and **Move Down** icons to adjust the relative positions of the sections on the home page.
7. Click **Apply**.

If you're using a panel or banner layout, do these tasks:

1. Activate a sandbox that has the Appearance tool in it.
2. Click **Navigator > Configuration > Appearance**.
3. Click the Home Page Display tab.
4. Select one of these options to display on the home page:
  - o **Social**: Displays social networking content, such as the number of followers.
  - o **Announcements**: Displays employee announcements.
  - o **Cover image**: Displays the image for the main panel or banner, which you specify on the Themes page.
  - o **None**
5. Specify whether to display the photo in the main panel or banner of the home page from the social network profile or from HCM.
6. Click **Apply**.

### Related Topics

- [Configure Infolet Display](#)
- [Manage Themes](#)
- [Overview of Configuring Themes and Home Page Settings](#)
- [Configure Classic Themes](#)
- [Overview of Sandboxes](#)

## Configure Infolet Display

Use the Home Configuration page in the Structure work area (**Navigator > Configuration > Structure**) to configure the display settings of infolet pages in the Analytics section of the home page.

If you're using a panel or banner layout, the home page displays the page control containing icons that you use to go to infolet pages.

### Define Settings

You can rename infolet pages, change their visibility settings, and reorder them. But before you start, activate a sandbox that has the Structure tool in it.

On the Home Configuration page, you can do these tasks:

- Click the infolet page name to rename it.
- Click the **Visible** field for an infolet page to change its visibility setting. You can show or hide specific infolet pages on the home page. To do so, select any of these options:
  - **Yes**: The infolet page appears on the home page.
  - **No**: The infolet page doesn't appear on the home page.
  - **EL expression**: The evaluation of the EL expression decides the visibility of the infolet page on the home page for specific user roles.
- Use the **Move Up** and **Move Down** icons to adjust the relative positions of the infolet pages on the home page.

If you're using a panel or banner layout, you can use profile options to define settings for the filmstrip, which appears between the global header and the page title:

- To enable users to use the filmstrip, 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 filmstrip 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 when done, this profile option is set by default for subsequent sessions of that user.

### Related Topics

- [Set Profile Option Values](#)
- [Define Home Page Appearance](#)
- [Examples of EL Expressions](#)
- [Overview of Sandboxes](#)
- [Create and Activate Sandboxes](#)

## Create and Enable Announcements

Use the Announcements page to create, edit, or delete company announcements. After you create announcements, you can enable them to display on the home page, and also specify which user roles can see specific announcements on the home page.

You can also use the Announcements REST resource to create, edit, view, or delete announcements. Your application users can also create or edit announcements on their own, but they must have the Manage Help Content (ATK\_CUSTOMIZE\_HELP\_TOPICS\_PRIV) privilege.

### Create Announcements

1. Click **Navigator** > **Tools** > **Announcements**.
  2. Click **Create**.
  3. Specify the details, such as subject, start date, and end date.
  4. Select a category. If you select **User-Defined**, a text box appears, where you can provide additional details.
  5. Select any of these options to upload an image. Make sure your image size is 776x437 px or larger to avoid image distortion.
    - **Predefined**: Select an image from the list.
    - **File**: Browse and select a file from your local computer.
    - **URL**: Enter a full URL for the image.
- Note**: You can't delete announcement images or resize them.
6. From the **Visible** list, select any of these options:
    - **Yes**: The announcement appears on the home page.
    - **No**: The announcement doesn't appear on the home page.
    - **EL Expression**: The evaluation of the EL expression decides whether the announcement will appear on the home page for a specific user role.
  7. If you have selected **EL Expression** from the **Visibility** list, click the **Edit** icon next to the **Visibility** list. Then enter a value or expression, and click **Validate** to make sure that the validation result is **True**. For example, you can enter the EL expression in the `#{securityContext.userInRole['<role-name>']}` format.
  8. Add the content in the text box. You can format your text using the formatting options.
  9. Click **Save and Close**.

Your changes on the Announcements page apply immediately to all users, even if you saved your changes while a sandbox is active and not yet published.

## Edit or Delete Announcements

1. Click **Navigator** > **Tools** > **Announcements**.
2. Select the announcement that you want to edit or delete.
3. Edit the announcement details or click **Delete**.

## Enable News and Announcements Section on the Home Page

You can use the Appearance work area to determine whether to display the News and Announcements section on the home page. The News and Announcements section on the home page displays the entire announcement along with the subject and image. But if you're using a panel or banner layout, you will see only the announcement content, not the subject or image in the panel or banner.

1. Click **Navigator** > **Configuration** > **Appearance**.
2. Click the Home Page Display tab.
3. Select **Yes** for News and Announcements, and click **Apply**.

**Note:** If you're using a panel or banner layout, select **Announcements** from the home panel options, and then click **Apply**.

### Related Topics

- [Why can't I see announcements on my home page?](#)
- [Overview of Configuring Themes and Home Page Settings](#)
- [Announcements REST Endpoints](#)

## FAQs for Home Page Setup

### Why can't I see announcements on my home page?

That's because your administrator has either disabled announcements or not created any announcements.

### Related Topics

- [Create and Enable Announcements](#)
- [Define Home Page Appearance](#)

### How can I rename an icon for an infolet page in the page control on the home page?

You can rename an icon for an infolet page using the Home Configuration page of the Structure work area. To open this page, select **Configuration** > **Structure** from the Navigator menu, and then click the **Home Configuration** tab.

### Related Topics

- [Configure Infolet Display](#)



## How do I define whether the user image, name, or initials display in the global header?

Set the User Image Display Enabled (FND\_USER\_PHOTO\_ENABLED) profile option.

If you select:

- Yes, then the user image is displayed in the global header only if the user uploaded a photo. Otherwise, the user's initials are displayed. By default, this profile option is set to Yes.
- No, then only the user name is displayed in the global header.

*Related Topics*

- [Change Your Photo](#)

## Privacy Statement

### Set Privacy Statement URL

A privacy statement is legal content that tells you how a company collects and manages user data. You can add a link to your company's statement in the About This Application dialog box.

1. In the Setup and Maintenance work area, go to the **Manage Applications Core Administrator Profile Values** task in the Application Extensions functional area.
2. Search for the Privacy Statement URL (PRIVACY\_PAGE) profile option.
3. In the Profile Values section, update the **Profile Value** field with the full URL of the web page that has the privacy content. By default, this profile value is **N**.

**CAUTION:** Don't enter any other value, such as **Y**, because that causes a broken link.

4. Click **Save and Close**.

And that's it! Your users can now view the **Privacy Statement** link by clicking their user image or name in the global header and selecting **About This Application**.



# 17 Audit Policies

## Audit Policies

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.

If you don't want an application to be audited, you can stop the audit process by setting the Audit Level option to **None**. Also, note that there's no specified retention period for the audited data or the logs. Follow your company policy for retaining or removing such data.

**Note:** You won't be able to enable audit if you're working in a sandbox. If you try to set up audit while you're in a sandbox, you will see the message "Audit setup is disabled in a sandbox". You'll also notice that the buttons associated with the audit functionality are disabled.

#### Related Topics

- [Audit Configuration for Business Object Attributes](#)
- [Overview of Audit Configuration](#)

## What Incentive Compensation objects can I enable to track their audit history?

You use auditing to monitor user activity and all configuration, security, and data changes that have been made to an application. You can enable business objects for auditing, recording, and retrieving information about when the objects were created, modified, and removed.

You can enable these objects:

Area	Objects
Assignments	Plans Assigned Directly
Assignments	Participants by Role
Assignments	Plans Assigned by Role
Compensation Plans	Compensation Plan
Compensation Plans	Plan Component
Compensation Plans	Performance Measure
Incentive Compensation Paysheet	Manual Adjustment Amount
Incentive Compensation Paysheet	PaysheetVO
Participant Compensation Plans	Goal Header
Participant Compensation Plans	Period Goal
Credit Rules	Credit Rule
Credit Rules	Qualifying Criteria
Credit Rules	Credit Receivers
Participants	Participant Header
Participants	Participant Detail

# Audit Configuration for Business Object Attributes

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.

The 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, use the **Manage Audit Policies** task 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.

For business objects based on flexfields, select the Flexfields (Additional Attributes) check box to view, add, or remove flexfield attributes. The selected objects are audited.

**Note:** You can't audit LOB (BLOB, CLOB, and NCLOB), rich text, and long text attributes.

## 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 aren't audited. To continue to audit the business object with select attributes, deselect those attributes that aren't 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.

**Note:** When users export the report summary to a Microsoft Excel file, there's a limit on the number of rows that are displayed in the file.

- For Oracle Fusion Middleware products, the maximum limit is 25000. By default, the limit is set as 10000. You can change this limit using the FND\_AUDIT\_FMW\_EVENT\_LIMIT profile option.
- For Oracle Fusion Application Business Objects, the maximum limit is 10000 per table. This is set as the default value. Sometimes, the actual rows returned might be more than the limit set, because a single transaction can update multiple tables. To decrease this limit, you can create the FND\_AUDIT\_EXPORT\_ENTITY\_LIMIT profile option and set a lesser value for it.

See *Why is it taking so long to get search results when exporting audit summary of Fusion Application Business Objects?*

## Overview of Audit Configuration

To set up auditing for Oracle Applications Cloud, select the Manage Audit Policies task from the Setup and Maintenance work area within your offering.

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.

### Oracle Fusion Middleware Products

- Configure business objects to enable auditing in Oracle Fusion Middleware products. Refer to Oracle Applications Cloud Common Features Reference.

See: *Auditing Web Services*

### Oracle Fusion Security Products

- Configure business objects to enable auditing in Oracle Fusion security products. Refer to Oracle Applications Cloud Common Features Reference.

See: *Introduction to Oracle Fusion Middleware Audit Framework*

See: *Managing Audit*

# 18 External Integration

## Overview of Web Services

Use web services to integrate web-based applications into your Oracle Applications Cloud. Web services expose business objects and processes to other applications using open standards-based technologies.

Web services support development environments and clients that comply with these 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 has these two types of web services:

- Application Development Framework (ADF) services
- Composite services

Let's look at the web service types in detail.

Web Service Type	Description
ADF services	<p>ADF services usually represent business objects, such as employees or purchase orders. You can use these services to expose standard operations, such as create, update, and delete. However, for locally-persisted objects, ADF services aren't limited to these operations.</p> <p>Here are a few examples of ADF services and what they're used for:</p> <ul style="list-style-type: none"> <li>• <b>Worker.changeHireDate</b> - Use to update the hire date of the worker business object.</li> <li>• <b>ProjectTask.createTask</b> - Use to adds a task to the project task business object.</li> </ul>
Composite services	<p>Composite services usually represent end-to-end business process flows that act on business events produced by the ADF services. You can use these services to manage multiple object-based services, rules services, and human workflows. Here are a few examples of composite services and what they're used for:</p> <ul style="list-style-type: none"> <li>• <b>ProjectStatusChangeApproval.process</b> - Use to accept the change in project status.</li> <li>• <b>ScheduleOrchestrationOrderFulfillmentLineService.scheduleOrders</b> - Use to schedule resources used to fulfill an order.</li> </ul>

For more information about web services, see the SOAP Web Services guide for your cloud services.

# Files for Import and Export

## Overview of Files for Import and Export

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** in the global header, 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.

1. Click **Navigator > Tools > File Import and Export**.
2. In the Search Results section, click **Actions > Upload**.
3. On the Upload File window, click **Browse** and select the file to be uploaded.
4. From the Account list, select the account with which you want to associate the file.



### 5. Click **Save and Close**.

The details of the uploaded file appear in the Search Results section. Each uploaded file is assigned a unique Content ID.

## 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 (10 MB).

### *Related Topics*

- [Overview of External Data Integration Services for Importing Data](#)
- [Guidelines for File Import and Export](#)
- [Import Data into Application Tables](#)

## Guidelines for File Import and Export

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. The policy store is being updated with the new account information, which causes the delay.

## Naming the Account

If you create accounts for importing or exporting data, use the following conventions for naming the account:

- Don't include a slash (/) at the beginning or end.
- End the name with a dollar sign (\$) to avoid partial string matching.
- Use dollar sign and slash (\$/) as a separator in the hierarchical structure.

For example: `fin$/journal$/import$` The File Import and Export page transforms account names by removing the dollar sign (\$) separators. For example `fin$/journal$/import$` appears as `fin/journal/import`. The Remote Intradoc Client (RIDC) HTTP command-line interface (CLI) transforms the account name you specify without the dollar sign (\$) to one that includes the sign. 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.

### Related Topics

- [Import Data into Application Tables](#)
- [Overview of Files for Import and Export](#)
- [Document Transfer Utility](#)

# External Data Integration Services

## Overview of External Data Integration Services for Importing Data

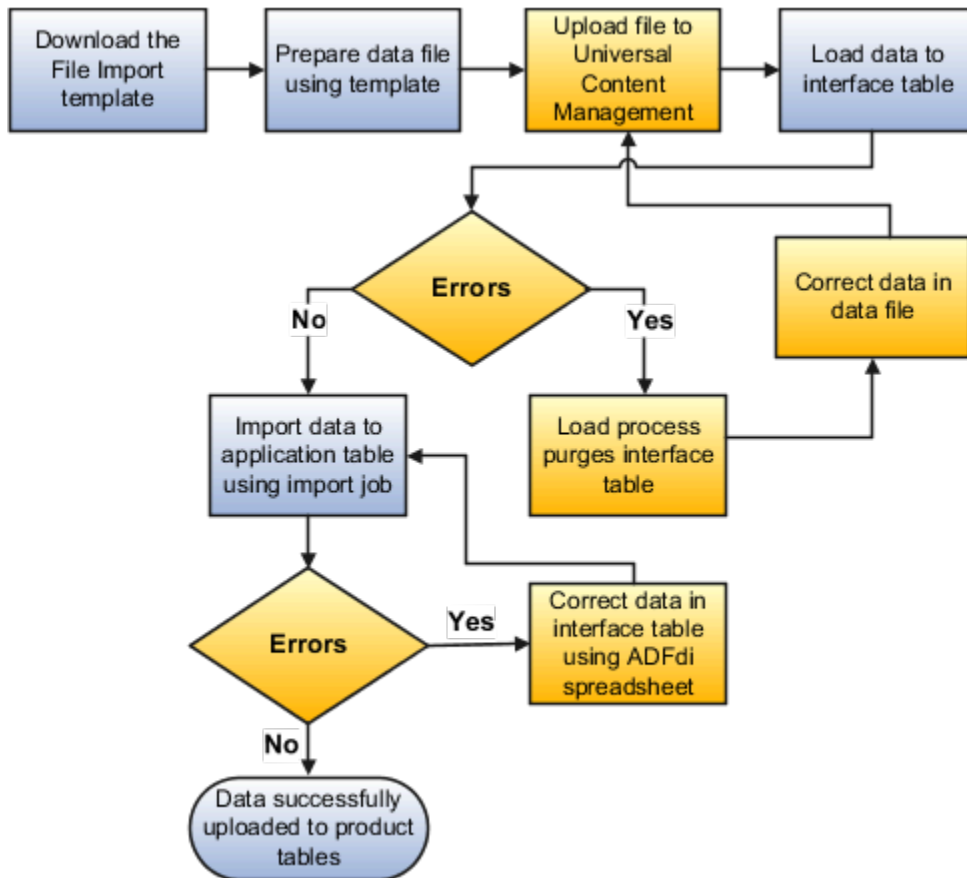
Use External Data Integration Services for Oracle Cloud to load data into the interface tables of Oracle Fusion Applications from external sources, such as legacy systems and third-party applications.

External Data Integration Services uses file-based data import (FBDI) templates and processes to import data.

The External Data Integration Services components consist of:

- 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 loading data from external sources.



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](#)

## Transfer Data Files to UCM Using Manual Flow

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

### Related Topics

- [Document Transfer Utility](#)

## Document Transfer Utility

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 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
<code>url</code>	Protocol-specific connection URL of content server
<code>user name</code>	User name to leverage

Option	Description
<code>password</code>	Password, supplied in command line
<code>passwordFile</code>	Password, supplied in text file on the first line of the file
<code>dID</code>	<p>ID of document revision to download</p> <p>dID is unique across repository</p> <p>dID changes with each revision</p> <p><b>Note:</b> Alternatively, specify the <code>dDocName</code> and <code>RevisionSelectionMethod</code> to identify the dID to leverage.</p>
<code>dDocName</code>	<p>Content name</p> <p>Multiple revisions of a document can share the same <code>dDocName</code> value, otherwise it is unique.</p> <p><b>Note:</b> You should also provide <code>RevisionSelectionMethod</code> value.</p>
<code>RevisionSelectionMethod</code>	<p>Revision to download</p> <p>Valid values: <code>Latest</code>, <code>LatestReleased</code></p> <p>Default value: <code>Latest</code></p>
<code>outputFile</code>	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=welcom3i
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
<code>url</code>	Protocol-specific connection URL of content server
<code>username</code>	User name to leverage
<code>password</code>	Password, supplied in command-line
<code>passwordFile</code>	Password, supplied in text file on the first line of the file
<code>primaryFile</code>	Fully-qualified path of local primary file to upload
<code>dDocAccount</code>	Destination account
<code>dDocTitle</code>	Document title
<code>checkout</code>	If uploading a document revision, check out the document from the repository before uploading the revision  Valid values: <code>true</code> , <code>false</code>  Default value: <code>false</code>
<code>ignoreCheckoutErrorNeg22</code>	Ignore error -22 (user has already checked-out the document) when checking-out the document.  Valid values: <code>true</code> , <code>false</code>  Default value: <code>true</code>

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=welcom3i
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
<code>verbose</code>	Verbose output

Option	Description
	Log filled with Request/Response DataBinders
<code>quiet</code>	Minimal output
<code>version</code>	Print tool revision or version
<code>log_file_name</code>	Send program output to specified log file instead of the System.out log file
<code>log_file_append</code>	Append log to existing log file rather than overwrite it  Valid values: <code>true</code> , <code>false</code>  Default value: <code>false</code>
<code>socketTimeout</code>	Override time out of socket  Specify override time in seconds

You can use the tools to test the connection. Provide only the url, user name, 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=welcom3i
```

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.
```

#### Related Topics

- [Overview of External Data Integration Services for Importing Data](#)
- [Transfer Data Files to UCM Using Manual Flow](#)
- [Use Excel Integration Templates to Generate Data Files](#)

## Load Interface File for Import Process

Use the Load Interface File for Import scheduled process when you need to import external setup or transaction data from your CSV files into the interface tables. The process prepares the data for import into application tables.

Run this process from the Scheduled Processes page. You can run it on a recurring basis.

## When to Use

Use this scheduled process when you load data from the CSV files into the interface table that corresponds to the template that you use to prepare the data.

Before running this process, you must complete these steps:

1. Prepare your data file. For details, see [File Import Templates](#).
2. Create the import file. For details, see [Use Excel Integration Templates to Generate Data Files](#).
3. Transfer the data file to the content repository. For details, see [Transfer Data Files to UCM Using Manual Flow](#).

## Privileges Required

Privileges are granted to duty roles, which are granted to job roles. To see which job roles inherit the required privileges, use the Security Console or see [Security Reference for Financials](#) and [Security Reference for Common Features](#).

## Specifications

Use these specifications when you run the scheduled process.

Specification	Description
Job Type	We recommend that you use Scheduled, but you can also run it on demand, when needed.
Frequency	There are no constraints.
Time of Day	Run it when your system isn't processing a lot of transactions.
Duration	Not applicable.
Compatibility	None.

## Parameters

The Import Process parameter and the Data File parameter are required. Set the parameters, as necessary.

Parameter	Description
Import Process	Select the target import process.
Data File	Do these steps. <ol style="list-style-type: none"> <li>1. Click the <b>down arrow</b> in the Data File attribute.</li> <li>2. Scroll down, then click <b>Upload a New File</b>.</li> <li>3. In the Upload File dialog, click <b>Select File</b>.</li> <li>4. In your Windows Explorer window, locate and select the .zip file that you created when you used the Price List Import Template, then click <b>Open</b>.</li> <li>5. In the Upload file dialog, click <b>OK</b>.</li> <li>6. In the Process Details dialog, make sure the Data File attribute displays the name of the .zip before you continue.</li> </ol>



Parameter	Description

## Troubleshooting Information

See:

- [Correct Import Load Process Errors](#)

### Related Topics

- [Transfer Data Files to UCM Using Manual Flow](#)
- [Correct Import Load Process Errors](#)
- [Document Transfer Utility](#)
- [Import Data into Application Tables](#)
- [File Import Templates](#)
- [Use Excel Integration Templates to Generate Data Files](#)

## Import Data into Application Tables

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.

### Related Topics

- [Document Transfer Utility](#)
- [Correct Import Load Process Errors](#)
- [Use Excel Integration Templates to Generate Data Files](#)

## Correct Import Load Process Errors

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.

### *Related Topics*

- [Import Data into Application Tables](#)
- [Load Interface File for Import Process](#)



# 19 Move Common Reference Objects

## Overview of Moving Common Reference Objects

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's 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.

#### *Related Topics*

- [Guidelines for Moving Related Common Reference Objects](#)
- [Business Objects for Moving Common Reference Objects](#)
- [Overview of Setup Data Export and Import](#)
- [Setup Data Export and Import Using an Offering or a Functional Area](#)

## Business Objects for Moving Common Reference Objects

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 changes to the Navigator using the configuration sets on the Configuration Set 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 <b>moduleType/moduleKey</b> : Only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  Parameter <b>messageName/applicationId</b> : 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 <b>moduleType/moduleKey</b> : 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.  Parameter <b>moduleType/moduleKey</b> : 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 <b>moduleType/moduleKey</b> : Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  Parameter <b>code/applicationId</b> : Only the specified document sequence category code is moved.
Application Document Sequence	Document sequences and their assignments	No parameters: All sequences are moved.  Parameter <b>moduleType/moduleKey</b> : Only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		<p>Parameter <b>name</b>: Only the specified document sequence is moved.</p>
<p>Application Descriptive Flexfield</p>	<p>Descriptive flexfield registration data and setup data</p>	<p>No parameters: All descriptive flexfields are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>descriptiveFlexfieldCode/applicationId</b>: 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.</p> <p><b>Note:</b> Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.</p>
<p>Application Extensible Flexfield</p>	<p>Extensible flexfield registration data and setup data, including categories</p>	<p>No parameters: All extensible flexfields are moved</p> <p>Parameter <b>moduleType/moduleKey</b>: Only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>extensibleFlexfieldCode/applicationId</b>: Only the specified extensible 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.</p> <p>Also, only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p> <p><b>Note:</b> Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.</p>
<p>Application Key Flexfield</p>	<p>Key flexfield registration data and setup data</p>	<p>No parameters: All key flexfields are moved.</p>

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		<p>Parameter <b>moduleType/moduleKey</b>: Only key flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>keyFlexfieldCode/applicationId</b>: Only the specified key flexfield is moved.</p> <p>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.</p> <p><b>Note:</b> Sometimes, the flexfield setup data exported to an XML file may contain noneditable auto-generated content that might not exist when exported to a CSV file. You may ignore and exclude such data during the export-import process.</p>
Application Flexfield Value Set	Value set setup data	<p>No parameters: All value sets are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>valueSetCode</b>: Only the specified value set is moved.</p> <p>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.</p>
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.
Application Reference Territory	Territory data	No parameters: All territories are moved.



Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Reference Time zone	Time zone data	No parameters: All time zones are moved.
Application Standard Lookup	Standard lookup types and their lookup codes	<p>No parameters: All standard lookups are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>lookupType</b>: Only the specified common lookup is moved.</p>
Application Common Lookup	Common lookup types and their lookup codes	<p>No parameters: All common lookups are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>lookupType</b>: Only the specified common lookup is moved.</p>
Application Set-Enabled Lookup	Set-enabled lookup types and their lookup codes	<p>No parameters: All set-enabled lookups are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <b>lookupType</b>: Only the specified set-enabled lookup is moved.</p>
Application Profile Category	Profile categories	<p>No parameters: All profile categories are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><b>name/applicationId</b>: Only the specified category is moved.</p>
Application Profile Option	Profile options and their values	<p>No parameters: All profile options and their values are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only profile options and their values belonging to the specified module are moved.</p> <p>Parameter <b>profileOptionName</b>: Only the specified profile option and its values are moved.</p>

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Profile Value	Profile options and their values	<p>No parameters: All profiles and their values are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only profiles and their values belonging to the specified module are moved.</p> <p>Parameter <b>categoryName/categoryApplicationId</b>: Only profiles and their values belonging to the specified category are moved.</p> <p>Parameter <b>profileOptionName</b>: Only the specified profile and its values are moved.</p>
Application Reference Data Set	Reference data sets	No parameters: All sets are moved.
Application Reference Data Set Assignment	Reference data set assignments	<p>Parameter <b>determinantType</b>: Only assignments for the specified determinant type are moved.</p> <p>Parameter <b>determinantType/referenceGroupName</b>: Only assignments for the specified determinant type and reference group are moved.</p>
Application Tree Structure	Tree structures and any labels assigned to the tree structure	<p>No parameters: All tree structures (and their labels) are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only tree structures (and their labels) belonging to the specified module are moved.</p> <p>Parameter <b>treeStructureCode</b>: Only the specified tree structure (with its labels) is moved.</p>
Application Tree	Tree codes and versions	<p>No parameters: All trees are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only trees belonging to the specified module are moved.</p> <p>Parameter <b>treeStructureCode</b>: Only trees belonging to the specified tree structure are moved.</p> <p>Parameter <b>TreeStructureCode/TreeCode</b>: Only trees belonging to the specified tree structure and tree code are moved.</p>
Application Tree Label	Tree structures and any labels assigned to the tree structure	<p>No parameters: All tree structures (and their labels) are moved.</p> <p>Parameter <b>moduleType/moduleKey</b>: Only tree structures (and their labels) belonging to the</p>

Business Object Name	Moved Functional Item	Effect on the Scope of Movement
		<p>specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <code>treeStructureCode</code>: Only the specified tree structure (with its labels) is moved.</p>
Application Data Security Policy	Database resources, actions, conditions, and data security policies	<p>No parameters: All database resources/actions/conditions/policies are moved.</p> <p>Parameter <code>moduleType/moduleKey</code>: Only database resources/actions/conditions/policies belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p>Parameter <code>objName</code>: Only the specified database resource along with its actions/conditions/policies is moved.</p> <p>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.</p>

*Related Topics*

- [Guidelines for Moving Related Common Reference Objects](#)

## Guidelines for Moving Related Common Reference Objects

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.

#### Related Topics

- [Business Objects for Moving Common Reference Objects](#)

## Guidelines for Moving Common Reference Objects Using the Seed Data Framework

To move the common reference objects, you can use the Seed Data Framework. You can also use the command line interface of the Seed Data Framework to move the object setup data.

### Movement Dependencies

The seed data interface moves only the setup metadata. For example, if you use Seed Data Framework 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 Seed Data Framework 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 isn't lost during the movement, certain guidelines are prescribed. It's recommended that you perform the movement of object data exactly in the following order:

**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.



# 20 Test Your Implementation and Purge Data

## Purge Incentive Compensation Transactional Test Data

You can test your new implementation by creating transactions and taking them through to payment. When you're ready to go live, use this procedure to purge all of your transaction data.

**CAUTION:** The data will be completely purged and isn't recoverable.

Do this first to prevent errors:

- Have other users sign out so they can't perform transactions while the purge is running.
- Complete any paysheet approval requests.
- Complete the approval process for any disputes.
- Run the Deploy Incentive Plans process to make sure there are no unprocessed events.

To purge test transactional data:

1. Click **Navigator > Scheduled Processes**.
2. Click **Schedule New Process**.
3. Search for the **Purge Incentive Compensation Transactional Test Data** process.
4. Click **OK**.
5. In the Parameters region, select at least one and up to three business units to be purged. If you have any transactions in one business unit that also have credits in a different business unit, then select both business units to be purged.
6. Make sure all the transaction data in the selected business units is test data that no one will need in the future. Then select the **I understand that purged data can't be retrieved** check box.
7. Click **Submit**.

These transaction tables are purged:

Table Name	Data Contained
CN_TP_TRANSACTIONS_ALL	Transactions
CN_TP_CREDITS_ALL	Credits
CN_TP_EARNINGS_ALL	Earnings
CN_TP_TRANSACTIONS_ALL_H	Transaction History
CN_TP_CREDITS_ALL_H	Credits History
CN_TP_EARNINGS_ALL_H	Earnings History

Table Name	Data Contained
CN_TP_JOB_STATISTICS_ALL	Collect Statistics
CN_TP_EVENT_LOGS_ALL	Changed Event Log
CN_TP_MEASURE_RESULTS_ALL	Measure Results
CN_DISPUTES_ALL	Disputes
CN_EST_CMP_TRANSACTIONS_ALL	Estimated Compensation Transactions
CN_EST_CMP_EARNINGS_ALL	Estimated Compensation Earnings
CN_EST_CMP_MSR_RESULTS_ALL	Estimated Compensation Measure Results
CN_EST_CMP_SCENARIOS_ALL_B	Estimated Compensation Scenarios
CN_EST_CMP_SCENARIOS_ALL_T	Estimated Compensation Scenarios
CN_EST_CMP_SCENARIOS_TXNS_ALL	Estimated Compensation Scenarios
CN_SRP_SUBLEDGER_ALL	Participant Balances
CN_TP_PARTICIPANT_PAY_ALL	Payment Transactions
CN_TP_PAYRUNS_ALL	Payment Batches
CN_TP_PAYSHEETS_ALL	Paysheets
CN_SRP_PER_FORM_METRICS_ALL	Period target and draw amounts assigned to a salesperson's plan component

## Purge Transactions, Credits, and Earnings by Period

You can delete transactions, credits, and earnings data for a specified period within a business unit using the Purge Transactions, Credits, and Earnings by Period process. Set the parameter Record type to purge to control what data is purged.



Record Type to Purge Parameter	Data to be Purged
All	Purge all transactions, credits, and earnings records for the period and business unit. This is the default setting.
Classification	Purge all data created by the classification process.
Crediting	Purge all data created by the crediting process.
Rollup	Purge all data created by the rollup process.
Calculation	Purge all data created by the calculation process.

**CAUTION:** Purged data can't be retrieved.

Here are a few things to keep in mind:

- Your selected period must be in the Open status.
- Transactions can't have credits in a different business unit from the one you selected.
- To run this process you need the Incentive Compensation Application Administrator role.

## Purge Incentive Compensation Staging Table Data

Use the Purge Incentive Compensation Staging Table Data process to remove staged data after an import. You can purge transaction, currency conversion rate, and participant staged data.

If you import invalid data, you can purge the data from the staging table.

1. Click **Navigator** > **Credits and Earnings** > **View Processes**.
2. Click **Schedule New Process**.
3. Search for the **Purge Incentive Compensation Staging Table Data** process.
4. Click **OK**.
5. In the Parameters region, select the staging table to purge:
  - Currency conversion rate staging ( for CN\_CONVERSION\_RATES\_STAGING\_T table )
  - Participant goal staging ( for CN\_SRP\_GOALS\_STAGING\_T table )
  - Participant staging ( for CN\_SRP\_PARTICIPANTS\_STAGING\_T table )
  - Participant detail staging ( for CN\_SRP\_PRTCPNTS\_UCM\_STAGING\_T table )
  - Transaction staging ( for CN\_TP\_TRANSACTIONS\_STAGING\_T table )
6. Select the **I understand that purged data can't be retrieved** check box.
7. Click **Submit**.

## Test and Go Live

When you complete your implementation tasks, here are suggestions for testing and then moving your final test data to your production environment.

1. Create compensation plans and test the flows from transaction to payment in the test environment.
2. Try different plans and rules until compensation analysts determine the final versions.
3. Purge the transaction data as needed to start over.
4. Use a configuration package to move your setup to your production environment. Some configurations are by business unit and require that your business unit setup be included in the move to the new environment.
5. Export the final compensation plans and rules to the production environment.

### *Related Topics*

- [Export Setup Data Using Offering or Functional Area](#)
- [Export Setup Data Using Implementation Project](#)