

# **Oracle® Fusion Applications Workforce Deployment Implementation Guide**

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Oracle® Fusion Applications Workforce Deployment Implementation Guide

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# Preface

This Preface introduces the guides, online help, and other information sources available to help you more effectively use Oracle Fusion Applications.

## Oracle Fusion Applications Help

You can access Oracle Fusion Applications Help for the current page, section, activity, or task by clicking the help icon. The following figure depicts the help icon.



You can add custom help files to replace or supplement the provided content. Each release update includes new help content to ensure you have access to the latest information. Patching does not affect your custom help content.

## Oracle Fusion Applications Guides

Oracle Fusion Applications guides are a structured collection of the help topics, examples, and FAQs from the help system packaged for easy download and offline reference, and sequenced to facilitate learning. You can access the guides from the **Guides** menu in the global area at the top of Oracle Fusion Applications Help pages.

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### Note

The **Guides** menu also provides access to the business process models on which Oracle Fusion Applications is based.

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Guides are designed for specific audiences:

- **User Guides** address the tasks in one or more business processes. They are intended for users who perform these tasks, and managers looking for an overview of the business processes. They are organized by the business process activities and tasks.
- **Implementation Guides** address the tasks required to set up an offering, or selected features of an offering. They are intended for implementors. They are organized to follow the task list sequence of the offerings, as displayed within the Setup and Maintenance work area provided by Oracle Fusion Functional Setup Manager.
- **Concept Guides** explain the key concepts and decisions for a specific area of functionality. They are intended for decision makers, such as chief financial officers, financial analysts, and implementation consultants. They are organized by the logical flow of features and functions.

- **Security Reference Manuals** describe the predefined data that is included in the security reference implementation for one offering. They are intended for implementors, security administrators, and auditors. They are organized by role.

These guides cover specific business processes and offerings. Common areas are addressed in the guides listed in the following table.

Guide	Intended Audience	Purpose
Common User Guide	All users	Explains tasks performed by most users.
Common Implementation Guide	Implementors	Explains tasks within the Define Common Applications Configuration task list, which is included in all offerings.
Information Technology Management, Implement Applications Guide	Implementors	Explains how to use Oracle Fusion Functional Setup Manager to plan, manage, and track your implementation projects, migrate setup data, and validate implementations.
Technical Guides	System administrators, application developers, and technical members of implementation teams	Explain how to install, patch, administer, and customize Oracle Fusion Applications.

For guides that are not available from the Guides menu, go to Oracle Technology Network at <http://www.oracle.com/technetwork/indexes/documentation>.

## Other Information Sources

### My Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Use the My Oracle Support Knowledge Browser to find documents for a product area. You can search for release-specific information, such as patches, alerts, white papers, and troubleshooting tips. Other services include health checks, guided lifecycle advice, and direct contact with industry experts through the My Oracle Support Community.

### Oracle Enterprise Repository for Oracle Fusion Applications

Oracle Enterprise Repository for Oracle Fusion Applications provides visibility into service-oriented architecture assets to help you manage the lifecycle of your software from planning through implementation, testing, production,

and changes. In Oracle Fusion Applications, you can use the Oracle Enterprise Repository for Oracle Fusion Applications at <http://fusionappsoer.oracle.com> for:

- Technical information about integrating with other applications, including services, operations, composites, events, and integration tables. The classification scheme shows the scenarios in which you use the assets, and includes diagrams, schematics, and links to other technical documentation.
- Publishing other technical information such as reusable components, policies, architecture diagrams, and topology diagrams.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/us/corporate/accessibility/index.html>.

## Comments and Suggestions

Your comments are important to us. We encourage you to send us feedback about Oracle Fusion Applications Help and guides. Please send your suggestions to [oracle\\_fusion\\_applications\\_help\\_ww\\_grp@oracle.com](mailto:oracle_fusion_applications_help_ww_grp@oracle.com). You can use the **Send Feedback to Oracle** link in the footer of Oracle Fusion Applications Help.



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# Overview

## Workforce Deployment Offering: Overview

Using the workforce deployment business process area, your enterprise can align resources and people with business objectives, and enter and maintain information related to people, employment, and work structures. The process also includes full service payroll offerings for core payroll and localizations including setup, processing, monitoring, internal and external integration touch points, and reporting. The workforce deployment offering provides the task lists for setting up all of this business process area except Manage Expenses. Use the Financials offering to set up expenses.

Before you begin, use the Getting Started page in the Setup and Maintenance work area to access reports for each offering, including full lists of setup tasks, descriptions of the options and features you can select when you configure the offering, and lists of business objects and enterprise applications associated with the offering.

The first step in implementation is to configure the offerings in the Setup and Maintenance work area to select which offerings and options are available to implement. For the Workforce Deployment offering, you can select the following options:

- Payroll
- Absence Management
- Human Resource Business Intelligence Analytics

Next you create one or more implementation projects for the offerings and options that you want to implement first, and generate task lists for each project. The application implementation manager can assign and track each task.

If you select all the options, the generated task list for this offering contains the following groups of tasks:

- Define Common Applications Configuration for Human Capital Management
- Define Common HCM Configuration
- Define Payroll
- Define Elements, Balances, and Formulas
- Define Security for Payroll
- Define Absences
- Define Transactional Business Intelligence Configuration
- Define Extensions for Workforce Deployment

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### Note

You must complete the tasks under Define Common Applications Configuration and Define Common HCM Configuration if they were not performed in an earlier implementation project.

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### **Define Common Applications Configuration**

Use this task list to manage definitions used across offerings, typically applying to multiple products and product families. These definitions include enterprise structures, workforce profiles, security, and approval rules, amongst others.

### **Define Common HCM Configuration**

Use this task list to set up objects that apply to multiple products within the HCM product family. These definitions include workforce records, extracts, and business processes and events.

### **Define Payroll**

Use this task list to configure rules for payroll processing.

### **Define Elements, Balances, and Formulas**

Use this task list to define elements, balances, and formulas for HR processing, such as absence management. If you configure the Payroll option for the offering, you can access the same tasks and more from the Define Payroll task list.

### **Define Security for Payroll**

This task list contains tasks to manage the data roles and security profiles you require for managing payrolls.

### **Define Absences**

This task list contains tasks to manage the definitions required for recording and processing absences, accrual plans, and entitlement plans.

### **Define Transactional Business Intelligence Configuration**

Use this task list to configure Oracle Transactional Business Intelligence for ad hoc reporting, including managing the repository, connections, presentation catalog, and currency type display.

### **Define Extensions for Workforce Deployment**

Use this task list to define extensions such as custom Oracle Enterprise Scheduler jobs. You can also customize and extend applications using other tools. For more information, see the Oracle Fusion Applications Extensibility Guide.

## **Getting Started with an Implementation: Overview**

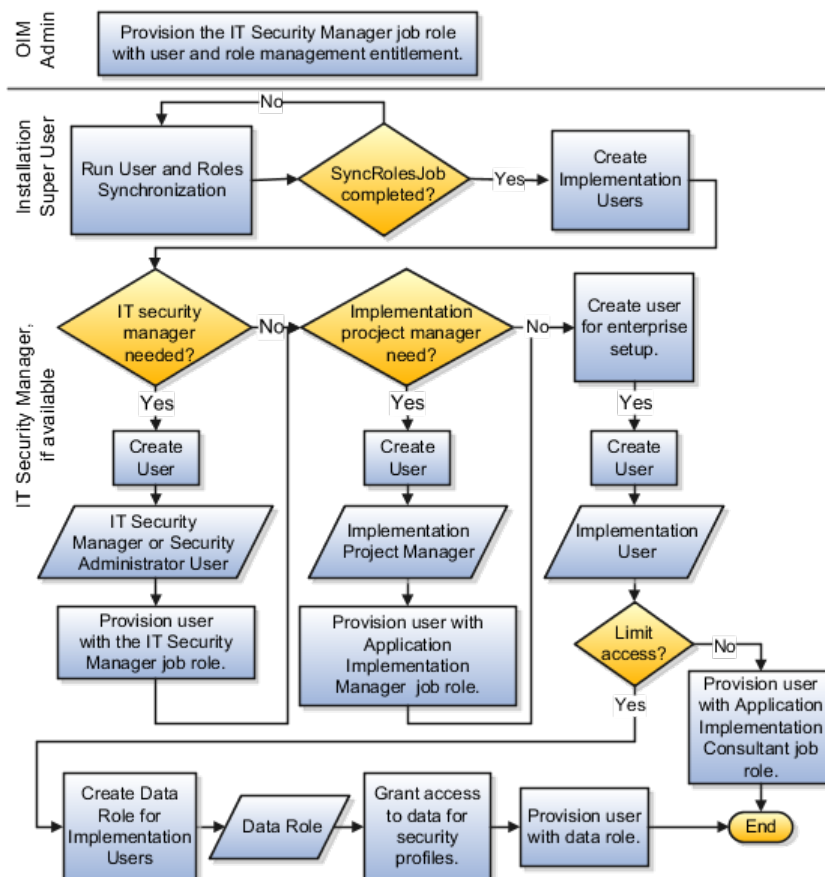
To start an Oracle Fusion Applications implementation, you must setup one or more initial users using the super user that was created during installation and provisioning of the Oracle Fusion Applications environment. Because Oracle Fusion Applications is secure as delivered, the process of enabling the necessary setup access for initial users requires several specialized steps when getting started with an implementation.

The following high level steps are required for starting an implementation.

1. As the Oracle Identity Management Administration user, provision the IT Security Manager job role with roles for user and role management.  
This step enables the super user account, which is provisioned with the IT Security Manager job role, to create implementation users.
2. As the Oracle Fusion Applications installation super user, perform the following tasks once you have selected an offering to implement and generated the setup tasks needed to implement the offering.
  - a. Synchronize users and roles in the Lightweight Directory Access Protocol (LDAP) store with HCM user management by using the Run User and Roles Synchronization Process task.
  - b. Create an IT security manager user by using the Create Implementation Users task.

- c. Provision the IT security manager with the IT Security Manager role by using the Provision Roles to Implementation Users task.
3. As the newly created IT security manager user, sign in to Oracle Fusion Applications and set up at least one implementation user for setting up enterprise structures.
  - a. Create an implementation user by using the Create Implementation Users task.
  - b. Provision the implementation user with the Application Implementation Manager job role or the Application Implementation Consultant job role by using the Provision Roles to Implementation Users task. The Application Implementation Consultant job role inherits from all product-specific application administrators and entitles the necessary View All access to all secured object.
  - c. Optionally, create a data role for an implementation user who needs only the limited access of a product-specific Application Administrator by using the Create Data Role for Implementation Users. Then assign the resulting data role to the implementation user by using the Provision Roles to Implementation Users task.

The figure shows the task flow from provisioning the IT Security Manager job role with the user and role management entitlement to creating and provisioning implementation users for enterprise setup.



# Manage Application Implementation

## Manage Application Implementation: Overview

The Manage Applications Implementation business process enables rapid and efficient planning, configuration, implementation, deployment, and ongoing maintenance of Oracle Fusion applications through self-service administration.

The Setup and Maintenance work area offers you the following benefits:

- Prepackaged lists of implementation tasks

Task lists can be easily configured and extended to better fit with business requirements. Auto-generated, sequential task lists include prerequisites and address dependencies to give full visibility to end-to-end setup requirements of Oracle Fusion applications.

- Rapid start

Specific implementations can become templates to facilitate reuse and rapid-start of consistent Oracle Fusion applications setup across many instances.

- Comprehensive reporting

A set of built-in reports helps to analyze, validate and audit configurations, implementations, and setup data of Oracle Fusion applications.

With Oracle Fusion Functional Setup Manager you can:

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

There are several documentation resources available for learning how to configure Oracle Fusion Applications.



- Functional Setup Manager Developer's Guide
- Common Implementation Guide
- Customer Data Management Implementation Guide
- Enterprise Contracts Implementation Guide
- Marketing Implementation Guide
- Sales Implementation Guide
- Fusion Accounting Hub Implementation Guide
- Financials Implementation Guide
- Compensation Management Implementation Guide
- Workforce Deployment Implementation Guide
- Workforce Development Implementation Guide
- Incentive Compensation Implementation Guide
- Procurement Implementation Guide
- P6 EPPM Administrator's Guide for an Oracle Database
- P6 EPPM Administrator's Guide for Microsoft SQL Server Database

## Implementation Projects: Explained

An implementation project is the list of setup tasks you need to complete to implement selected offerings and options. You create a project by selecting the offerings and options you want to implement together. You manage the project as a unit throughout the implementation lifecycle. You can assign these tasks to users and track their completion using the included project management tools.

### Maintaining Setup Data

You can also create an implementation project to maintain the setup of specific business processes and activities. In this case, you select specific setup task lists and tasks

### Exporting and Importing

Implementation projects are also the foundation for setup export and import. You use them to identify which business objects, and consequently setup data, you will export or import and in which order.

### Selecting Offerings

When creating an implementation project you see the list of offerings and options that are configured for implementation. Implementation managers specify which of those offerings and options to include in an implementation

project. There are no hard and fast rules for how many offerings you should include in one implementation project. The implementation manager should decide based on how they plan to manage their implementations. For example, if you will implement and deploy different offerings at different times, then having separate implementation projects will make it easier to manage the implementation life cycles. Furthermore, the more offerings you included in an implementation project, the bigger the generated task list will be. This is because the implementation task list includes all setup tasks needed to implement all included offerings. Alternatively, segmenting into multiple implementation projects makes the process easier to manage.

## Offerings: Explained

Offerings are application solution sets representing one or more business processes and activities that you typically provision and implement as a unit. They are, therefore, the primary drivers of functional setup of Oracle Fusion applications. Some of the examples of offerings are Financials, Procurement, Sales, Marketing, Order Orchestration, and Workforce Deployment. An offering may have one or more options or feature choices.

### Implementation Task Lists

The configuration of the offerings will determine how the list of setup tasks is generated during the implementation phase. Only the setup tasks needed to implement the selected offerings, options and features will be included in the task list, giving you a targeted, clutter-free task list necessary to meet your implementation requirements.

### Enabling Offerings

Offerings and their options are presented in an expandable and collapsible hierarchy to facilitate progressive decision making when specifying whether or not an enterprise plans to implement them. An offering or its options can either be selected or not be selected for implementation. Implementation managers decide which offerings to enable.

### Provisioning Offerings

The Provisioned column on the Configure Offerings page shows whether or not an offering is provisioned. While you are not prevented from configuring offerings that have not been provisioned, ultimately the users are not able to perform the tasks needed to enter setup data for those offerings until appropriate enterprise applications (Java EE applications) are provisioned and their location (end point URLs) is registered.

## Options: Explained

Each offering in general includes a set of standard functionality and a set of optional modules, which are called options. For example, in addition to standard Opportunity Management, the Sales offering includes optional functionality such as Sales Catalog, Sales Forecasting, Sales Prediction Engine, and Outlook

Integration. These optional functions may not be relevant to all application implementations. Because these are subprocesses within an offering, you do not always implement options that are not core to the standard transactions of the offering.

## **Feature Choices: Explained**

Offerings include optional or alternative business rules or processes called feature choices. You make feature selections according to your business requirements to get the best fit with the offering. If the selected offerings and options have dependent features then those features are applicable when you implement the corresponding offering or option. In general, the features are set with a default configuration based on their typical usage in most implementations. However, you should always review the available feature choices for their selected offerings and options and configure them as appropriate for the implementation.

You can configure feature choices in three different ways:

### **Yes or No**

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

### **Single Select**

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

### **Multi-Select**

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



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## Common Applications Configuration: Define Synchronization of Users and Roles from LDAP

### User and Role Synchronization: Explained

Oracle Identity Management (OIM) maintains Lightweight Directory Access Protocol (LDAP) user accounts for users of Oracle Fusion applications. OIM also stores the definitions of abstract, job, and data roles and holds information about roles provisioned to users. During implementation, any existing information about users, roles, and roles provisioned to users must be copied from the LDAP directory to the Oracle Fusion Applications tables. Once the Oracle Fusion Applications tables are initialized with this information, it is maintained automatically. To perform the initialization, you run the process Retrieve Latest LDAP Changes.

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#### Note

For security and audit best practice, implementation users have person records and appropriate role-based security access. So that appropriate roles can be assigned to implementation users, you must run the process Retrieve Latest LDAP Changes before you create implementation users.

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During initial implementation, the installation super user performs the task Run User and Role Synchronization Process to run the Retrieve Latest LDAP Changes process.

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#### Tip

The user name and password of the installation super user are created during installation provisioning of Oracle Fusion Applications. For details of the user name and password, contact your system administrator or the person who installed Oracle Fusion Applications.

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## Common Applications Configuration: Define Implementation Users

### Initial Security Administration: Critical Choices

After installation and provisioning, and before setting up enterprise structures and implementing projects, you must establish required entitlement for the super user account and at least one implementation user to proceed with the implementation. Once initial enterprise structure setup is complete, additional users may be created through processes available in Human Capital Management (HCM).

Initial security administration consists of the following.

- Preparing the IT Security Manager job role
- Synchronizing users and roles from Lightweight Directory Access Protocol (LDAP) with HCM
- Creating implementation users
- Optionally creating data roles for implementation users
- Provisioning implementation users with roles

Once the first implementation project begins and the enterprise work structure is set up, use standard user and security management processes such as the Manage Users task to create and manage additional users. Do not use the Create Implementation Users task after your enterprise has been set up.

#### Preparing the IT Security Manager Job Role

Initially the super user is not provisioned to manage users and roles.

You must add the following Oracle Identity Management (OIM) roles to the IT Security Manager job role's role hierarchy to enable the super user to create one or more initial implementation users.

- Identity User Administrators
- Role Administrators

Additionally, you must assign the Xellerate Users organization to the IT Security Manager role.

## Synchronizing Users and Roles from LDAP

After configuring an offering and setting up the task lists for implementation, the Run User and Roles Synchronization Process task is available to the super user for synchronizing users and roles in the LDAP store with Oracle Fusion Human Capital Management (HCM).

## Defining Initial Implementation Users

The super user is provisioned with roles that provide broad access to Oracle Fusion Middleware and Oracle Fusion Applications administration, and is not suitable as an implementation user in most enterprises. The super user should define at least one implementation user, which consists of creating the user account and provisioning it with at least the Application Implementation Consultant and Application Implementation Manager job roles.

As a security guideline, define an IT security manager user who in turn defines one or more implementation users to set up enterprise structures. The IT security manager users can provision the implementation user with the Application Implementation Consultant role, which entitles access to all enterprise structures. Or the IT security manager can create a data role that restricts access to enterprise structures of a specific product and provisioning that role.

Depending on the size of your implementation team, you may only need a single implementation user for security administration, implementation project management, enterprise structures setup, and application implementation. That single user must then be provisioned with all indicated roles, and therefore broad access.

## Creating Implementation Users

The super user creates one or more implementation users by performing the Create Implementation Users task.

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### Note

This initial implementation user is a user account created in Oracle Identity Management only, specifically for setting up enterprise structures, and is not related to a real person or identity such as a user defined in HCM.

---

## Creating Data Roles for Implementation Users

As an alternative to provisioning an implementation user with the Application Implementation Consultant role to access all enterprise structures, you may need implementation users with access restricted to enterprise structures for specific products. In this case, use the Create Data Roles for Implementation Users task to create a data role based on a job role with less broad access, such as the HCM Application Administrator job role.

## Provisioning Roles to Implementation Users

After creating an implementation user, you must provision the user with one or more roles by performing the Provision Roles to Implementation Users task.



For example, assign a role to the implementation user that provides the access necessary for setting up the enterprise. Depending on need, provision to the implementation user the predefined Applications Implementation Consultant role or a product family-specific administrator data role, such as a data role based on the predefined Financials Applications Administrator.

---

**Caution**

The Application Implementation Consultant has broad access. It is a very useful role for experimentation or setting up a pilot environment, but may not be suitable for implementation users in a full implementation project.

---

## Initial Security Administration: Worked Example

This example illustrates initial security administration after having installed and provisioned an Oracle Fusion Applications environment.

In Oracle Fusion Applications, you manage users and security through Oracle Fusion Human Capital Management (HCM) user management flows, which are included in each of the offering task lists. However, the HCM task flows require that enterprise structures have been set up, and yet to add users who can set up enterprise structures you need to have set up HCM. Therefore, you need to create one or more initial implementation users who are responsible for providing the following.

- Users and their applications security management
- Implementation project management
- Initial enterprise structures management

The following table summarizes key decisions for this scenario.

Decision	In this Example
How to sign in to Oracle Fusion Applications for the first time	Use the super user account that was created when installing and provisioning Oracle Fusion Applications (for example, FAADMIN).
How to ensure that the roles and users in the Lightweight Directory Access Protocol (LDAP) store match what is available for selection when defining implementation users	Perform the Run User and Roles Synchronization Process task.
How to create a first implementation user	Prepare the IT Security Manager job role for user and role management so the super user and any other user provisioned with the IT Security Manager job role can manage users and roles.
How to establish security administration users	Define an IT security manager user provisioned with the IT Security Manager job role.
How to establish an implementation user with access to set up enterprise structures	Define an implementation user provisioned with the Application Implementation Consultant job role.

You create an initial implementation user by performing the following tasks.

1. The Oracle Identity Management System Administrator user provisions the IT Security Manager job role with roles for user and role management.

2. The Oracle Fusion Applications super user synchronizes LDAP users with HCM user management so that users can be provisioned with roles through HCM.
3. The Oracle Fusion Applications super user performs the Create Implementation Users task to create one or more IT security manager and administrator users provisioned with security administrative entitlement.
4. The IT Security Manager user signs in to Oracle Fusion Applications and performs the Create Implementation Users task to create implementation managers and users.
5. The IT Security Manager user provisions implementation users for enterprise structure setup.

---

**Note**

The following tasks assume that the super user has configured an offering and set up task lists. When not following a task flow within an activity, you can find tasks in **Navigator > Tools > Setup and Maintenance > All Tasks**. Search for the task and click its **Go to Task** icon in the search results.

---

## Preparing the IT Security Manager Role

The super user that was created when installing and provisioning Oracle Fusion Applications (for example, FAADMIN) has all necessary access for implementing Oracle Fusion Applications and administering security. This access is provided by the following roles:

- Application Implementation Consultant
- IT Security Manager

Neither of these roles provides access needed for creating and managing Oracle Fusion Applications users. Therefore, you must add the following two OIM roles to the IT Security Manager role:

- Identity User Administrators
- Role Administrators

The following procedure is prerequisite to an IT security manager or administrator creating an initial one or more implementation users.

1. While signed into Oracle Identity Manager as the OIM System Administrator user, click the **Administration** link in the upper right of the Oracle Identity Manager.

This accesses the Welcome to Identity Manager Delegated Administration menu.

2. In the Roles list of tasks, click **Advanced Search - Roles**. Search for the Identity Users Administrators role by entering the role name in **Display Name** and clicking **Search**.

In the Search Results, click the role's Display Name.

3. On the Hierarchy tab, select **Inherits From** and click **Add**.

4. In the Add Parent Role to: IDENTITY USER ADMINISTRATORS window, select the role category: Common - Job Roles and add the IT Security Manager.

Click the arrow icon to show the list of available roles. Select IT Security Manager and move it to the **Roles to Add** list. Click **Save**.

5. Search for the Role Administrators role, and repeat steps 1 to 4 to add that role to the IT Security Manager role's role inheritance.
6. Assign the IT Security Manager role to the Xellerate Users organization.
  - a. In the Welcome to Identity Manager Delegated Administration menu (see step 1, above), in the Organizations list of tasks, click **Advanced Search - Organizations**.
  - b. Search for the Xellerate Users organization by entering Xellerate Users in **Display Name** and clicking **Search**.
  - c. In the Search Results, click the organization's Display Name. The Xellerate Users page appears.
  - d. Click the **Administrative Roles** link in the row of links above the Xellerate Users.
  - e. In **Filter By Role Name** of the Details window, enter the following string:  
  
`*IT_SECURITY_MANAGER*`  
  
Click **Find**.
  - f. Enable Read, Write, Delete, and Assign.
  - g. Click **Assign**.
  - h. Click **Confirm**.

## Synchronizing Users and Roles from LDAP

Lightweight Directory Access Protocol (LDAP) must be synchronized with HCM user management so that users can be provisioned with roles through HCM.

1. Sign in to Oracle Fusion Applications using the super user's user name (for example FAADMIN) and password.

If you do not know the super user name and password, check with your system administrator or the person who installed Oracle Fusion Applications. For more information about account creation in Oracle Fusion Applications provisioning, see the Oracle Fusion Applications Installation Guide.

2. Perform the Run User and Roles Synchronization Process task by clicking **Submit** in the Process Details page.

The SyncRolesJob process takes some time to complete the first time it is run.

3. Monitor completion of the SyncRolesJob process from **Navigator > Tools > Scheduled Processes** before continuing with creating implementation users.

## Defining an IT Security Manager User

The super user has broad access to Oracle Fusion Middleware and Oracle Fusion Applications administration. Due to this broad access, your enterprise needs users dedicated to managing users and applications security, such as an IT security manager user.

1. While signed in as the Oracle Fusion Applications super user, access the Create Implementation Users task and create an IT security manager.

The Oracle Identity Manager appears.

2. Click **Create User**.

For details, see the Creating Users section in the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

3. Provide the following attributes:

Attribute	Value	Example
Last name	<any valid string>	Smith
Organization	Xellerate Users	N/A
User type	Non Worker	N/A
User login	<any valid string>	IT_SECURITY_MANAGER
Login password	<any valid string>	SeKur1TyPa\$\$w0Rd

---

### Note

In Oracle Fusion Applications, an implementation user is a user account created in OIM only, specifically for implementation tasks, and is not related to a real person or identity such as a user defined in HCM.

---

4. Click **Save**.
5. On the Roles tab in the IT\_SECURITY\_MANAGER user creation task flow, click **Assign**.
6. In the Add Role window, search for the IT Security Manager role and click **Add**.

## Defining an Implementation User for Enterprise Structures Setup

1. Sign in to Oracle Fusion Applications using the IT security manager user's name and password.
2. Create and provision an implementation user using the same task flow as for creating the IT security manager user in the previous section, except provision the following roles.
  - Application Implementation Manager
  - Application Implementation Consultant

---

**Note**

For an implementation to begin, at least one user must be provisioned with the Application Implementation Manager role, and another or the same user must be provisioned with the Application Implementation Consultant role. The Application Implementation Consultant has broad access too set up all enterprise structures.

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# Common Applications Configuration: Define Geographies for Human Capital Management

## Defining Address Cleansing: Explained

Address cleansing provides a way to validate, correct, and standardize addresses that are entered in a user interface. Geography validation only validates the geography attributes of an address, for example, State, City, and Postal codes; address cleansing validates both the geography attributes and the address line attributes.

Address cleansing can only be used through the Oracle Fusion Trading Community Data Quality product, because the feature is delivered using Data Quality integration. You need to ensure that you have a license for the countries that will use Trading Community Data Quality data cleansing.

You can specify the real time address cleansing level for each country by choosing either **None**, meaning that there is no real time address cleansing, or by choosing **Optional**, meaning that you will have the choice to cleanse addresses. Once you have enabled address cleansing for a country a **Verify Address** icon appears at address entry points in the application. You can then click the icon to perform address cleansing and receive a corrected, standardized address. If Trading Community Data Quality does not find a matching address the application will alert you.

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

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

### Geography Structure

Firstly, you need to create a geography structure for each country to define which geography types are part of the country structure, and how the geography

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

### Geography Hierarchy

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

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

### Geography Validation

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

## Geography Structures: Explained

A geography structure is a hierarchical grouping of geography types for a country. For example, the geography structure for the United States is the geography type of State at the top, then followed by the County, then the City, and finally the Postal Code.

You can use the geography structure to establish:

- How geographies can be related
- The types of geographies you can define for the country

### How Geographies Can Be Related

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 country geography type is implicitly at the top of the geography structure, and the numbering of the subsequent levels start with 1 as the next geography level after country.

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. Only one geography type can be used for each level, you cannot define more than one geography type at the same level.



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**Note**

After you first define a country structure you can only add geography types below the current lowest level, and delete geography types without defined geographies.

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To simplify the creation of a country structure you can copy a structure from another country, and then amend the geography type hierarchy for the country.

**The Types of Geographies You Can Define for the Country**

The application provides you with a set of available master reference geography types. If required, you can create a geography type before adding it to the country structure. Each geography type is added below the current lowest level.

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**Note**

If you want to delete a geography type that is not at the lowest level in the country structure, then you have to delete the geography type level and all the levels below it.

---

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

## Geography Hierarchy: Explained

Geography hierarchy is a data model that lets you establish conceptual parent-child relationships between geographies. A geography, such as Tokyo or Peru, describes a boundary on the surface of the earth. The application can extrapolate information based on this network of hierarchical geographical relationships.

For example, in the geography hierarchy the state of California is defined as the parent of San Mateo county, which is the parent of Redwood City, which is the parent of the postal code 94065. If you enter just 94065, the application can determine that the postal code is in California, or that the corresponding city is Redwood City.

The application leverages geography hierarchy information to facilitate business processes that rely on geography information, for example, tax calculation, order sourcing rules, sales territory definition. The geography hierarchy information is centrally located in the Trading Community Model and shared among other application offerings.

The top level of the geography hierarchy is Country, so the hierarchy essentially contains countries and their child geographies. Other aspects of the geography hierarchy include:

- Geography
- Geography type
- Geography usage
- Master reference geography hierarchy
- User defined zones

## Geography

A geography is a boundary such as a country, state, province or city. It is a physical space with boundaries that is a defined instance of a geography type. For example, San Jose is a geography of the City geography type.

## Geography Type

Geography types are a divisional grouping of geographies, which can be either geopolitical (for example, City, Province, and District) or user defined (for example, Continent, Country Regions, Tax Regions).

## Geography Usage

Geography usage indicates how a geography type or geography is used in the application. A master reference geography always has the usage of Master Reference. User defined zones can have the usages of Tax, Shipping, or Territory, based on what is relevant for their purpose.

## Master Reference Geography Hierarchy

The geography hierarchy data is considered to be the single source of truth for geographies. It is all the data, including geography types and geographies, that you define and maintain in the Trading Community Model tables.

The geography usage for the entire hierarchy is the master reference, and defined geography types and geographies are considered as master reference geography types and geographies. For example, Country is a universally recognized geography type, and United States is considered a master geography.

## User Defined Zones

User defined zones are a collection of geographical data, created from master reference data for a specific purpose. For example, territory zones are collections of master reference geographies ordered in a hierarchy. Tax and shipping zones are collections of master reference geographies without a hierarchical grouping.

# Geography Validation: Explained

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

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

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

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

- Geography validation control

## Map to Attribute

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

---

### Note

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

---

## Enable List of Values

Once a geography type is mapped to an attribute, then you can specify whether the geography type will appear in a list of values during address entry in user interfaces. It is very important to review carefully if you want to enable a list of values. You should only enable a list of values if you have sufficient geography data imported or created for that geography. Once you have enabled a list of values for an address attribute, you can only select the geography data available for the geography type. This means that if a specific geography value is not available in the geography hierarchy, you cannot create an address with a different geography value.

## Tax Validation

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

## Geography Validation

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

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

---

### Note

For either the tax or geography validation, do not skip more than one consecutive level unless you are certain that the selected geography types can uniquely identify geographies. For example, the United States country structure

is: State, County, City, and Postal Code, and you want to select just State and Postal Code for geography or tax validation. However, for the combination of California and 94065, the city can be either Redwood Shores or Redwood City. In this case, you should also select at least the City geography type for geography or tax validation.

---

## Geography Validation Control

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

These are the geography validation levels you can choose:

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

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

---

### Note

The Geography Dimension value in territories is derived from sell-to addresses of sales accounts. To use geography dimensions in territories, ensure that the geography elements in addresses, such as state, city, and postal code, are validated. You can do so by enabling geography validation for each country using the Manage Geographies task. While doing so, ensure that at least one level in the geography hierarchy is enabled for geography validation. It is recommended that you enable geography validation for all geography levels that you intend to use for territory definition for each country. You can 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 also set geography validation control to Error in the Manage Geography Validation page. This ensures that users can only use valid geography elements in addresses. If you have already created addresses before setting up geography validation for a country, you must execute the Run Maintain Geography Name Referencing task for that country after enabling geography validation to ensure that all your geography elements are validated.

---

## Managing Geography Structures, Hierarchies, and Validation: Worked Example

This example shows how to start the configuration of the geography structure, hierarchy, and validation for the country geography of the United Kingdom.

The following table summarizes the key decisions for this scenario.

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

Add the County and Post Town geography types to the geography structure. Then add the geographies for the County and Post Town geography types to define the geography hierarchy. Finally, specify the geography validations for the geography types you have added to the geography structure.

## Defining the geography structure

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

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

## Defining the geography hierarchy

You want to begin to create the geography hierarchy for the United Kingdom, so you add the geographies for the County and Post Town geography types using the geography hierarchy User Interfaces. You can also use the Manage File Import Activities task to import geography hierarchies using a csv or xml file.

1. On the Manage Geographies page, enter GB in the **Code** field. Click **Search**.

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

## Defining the geography validations

Now you want to specify the geography validations for the geography types you have added to the United Kingdom. You define the geography mapping and validation for the United Kingdom default address style format. You 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. On the Manage Geography Validation page, 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. Click the **Enable List of Values** option for the County geography type.
5. Click the **Geography Validation** option for the County geography type.
6. For the Post Town geography type, click the **City** list item in the **Map to Attribute** field.
7. Click the **Geography Validation** option for the Post Town geography type.
8. In the Geography Validation Control section, click the **Error** list item in the **Geography Validation Level for Country** field.
9. Click **Save and Close**.

## Importing Geographies: Explained

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

to import the data. Having a good understanding of the import entity, interface table, and destination table will help you prepare your import data.

Consider the following when importing geographies:

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

### File-Based Import Option

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

### Geography Loader Process Option

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

### Import Object Entity, Interface Table, and Destination Tables

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

---

#### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

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

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
ImpGeography	HZ_IMP_GEOGRAPHIES	HZ_GEOGRAPHIES HZ_GEOGRAPHY_IDEN HZ_GEOGRAPHY_TYPE HZ_HIERARCHY_NODE	Geography

# Importing Geographies Using File-based Data Import: Worked Example

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

The following table summarizes the key decisions for this scenario:

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

## Summary of the Tasks

These are the steps that are required to create an import activity and submit the import:

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

## Prerequisites when importing additional geography data after your initial import

1. You need to ensure that the combination of Source ID and Parent Source ID values are unique for each row of data within a single import. However, your source data files do not need to have the same Source ID and Parent Source ID values as your previously imported geography data. If the geography structure levels and the parents for each geography value are the same, the changed IDs will not affect the import.
2. Ensure that all of 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 needs to include US, CA, and San Jose.
3. Check that your source data file has the correct values for the geography data that you have already loaded. For example, if your initial import included the value US for country and CA as state, and in a subsequent import you have California as a state, your geography import will result



in two state records (CA and California) in the application data, with the US as the country parent.

## Determine what information is in the source file

1. Your source geography data files should include a unique Source ID value for each row of data, and a Parent Source ID value which identifies the parent of that row of geography data. Source IDs, or Parent Source IDs, should not exceed 18 characters. An example of geography source data could be as follows:

Geography Level	Name	Source ID	Parent Source ID
1 (Country)	US	1	
2 (State)	CA	11	1
3 (County)	Alameda	111	11
4 (City)	Pleasanton	1111	111
4 (City)	Dublin	1112	111

## Create and schedule the import activity

You create an import activity, enter the import details, and schedule the import. An import activity definition provides the instructions for the import processing - this includes selecting the source file, or file location; mapping fields from the source file to the Oracle Fusion object and attribute; and scheduling the import.

1. Navigate to Setup and Maintenance and search for the Manage File Import Activities task. Click **Go to Task**.
2. In the Manage Import Activities page, click the **Create** icon.
3. In the Create Import Activity: Set Up page, create an import activity for the Geography object type by completing the fields, as shown in this table:

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

---

### Note

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

---

4. Click **Next**.
5. On the Create Import Activity: Map Fields page, map each field from your source file to the Oracle Fusion object and attribute, as shown in this example:

Column Header	Example Value	Ignore	Object	Attribute
Primary Geography Name	Primary Geography Name	United States	Imp Geography	Primary Geography Name
Country Code	US	No	Imp Geography	Country Code
Record Type Code	0	Yes	Imp Geography	Record Type Code
Source ID	10265	No	Imp Geography	Source ID
Parent Source ID	1053	No	Imp Geography	Parent Source ID

If you do not want to import a column in the text file you can select **Ignore**.

---

**Note**

If you have any difficulties mapping the fields from your source file to the relevant Oracle Fusion applications object, you can use the import object spreadsheets for reference.

---

6. Click **Next**.
7. On the Create Import Activity: Create Schedule page, select Immediate in the Schedule field so that the import will start immediately.

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

8. Click **Next**.

## Monitor the import results

You monitor the progress of the Import Activity processing, and view completion reports for both successful records and errors.

1. On the Create Import Activity: Review and Activate page, you verify your import details in the Import Details, File Details, Import Options, and Schedule sections.
2. Your import details are correct so you click **Activate** to submit the import.

Once the import activity has completed, the Status field value will change to Completed.

# Importing and Exporting Territory Geography Zones: Explained

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

To define your territory geography zones and then import your territory zones into another Oracle Fusion applications instance, you need to complete the following steps:

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

## Import the master reference geography data

Firstly, you need to import the master reference geography data. Master reference geography data consists of geography elements such as country, state, and city, and is required for any geographical information you store in the application, such as address information used in customer and sales records. For more information, refer to the Geography Hierarchy: Explained topic listed in the related topics section. Master reference geography data can be imported into the application using the Manage File Import Activities task in Setup and Maintenance - refer to the Importing Master Reference Geography Data: Worked Example topic listed in the related topics section for more information.

## Define your territory geography zones

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

## Export the territory geography zones

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

## Import the territory geography zones

Once you have downloaded your configuration package for your territory geography zone setup, you can import the territory zones into another Oracle

Fusion application instance. For more information, refer to the Importing Setup Data listed in the related topics section.

---

**Note**

Ensure that you import your master reference geography data into the new Oracle Fusion instance before you import the configuration package.

---

## FAQs for Define Geographies

### **When do I define address cleansing?**

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

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

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

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

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

### **Can I add any geography to the geography hierarchy?**

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

### **Can I edit a specific geography in the geography hierarchy?**

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

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

Select the geography that you want your geography to be created below, and then click the **Create** icon. This will allow you to create a geography for a

geography type that is the level below the geography type you selected. The structure of the country's geography types are defined in the Manage Geography Structure page.



---

## Common Applications Configuration: Define Currencies and Currency Rates

### Manage Currencies

#### Defining Currencies: Points to Consider

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

##### Currency Codes

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

##### Date Ranges

Users can enter transactions denominated in the currency only for the dates within the specified range. If you do not enter a start date, then the currency is valid immediately. If you do not enter an end date, then the currency is valid indefinitely.

##### Symbols

Even if you enter a symbol for a currency, the symbol is not always displayed when an amount is displayed in this currency. Some applications use currency symbols when displaying amounts. Others, like Oracle Fusion General Ledger, do not.

#### Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date.

---

**Note**

If you need to use a different currency code for Euro, you can disable the predefined Euro currency and create a new one.

---

**Derivation Type**

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

**Derivation Factor**

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

**Derivation Effective Date**

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

**FAQs for Manage Currencies****When do I create or enable currencies?**

Create currencies to use, for example for reporting purposes, if they are not already provided. All currencies from the International Organization for Standardization (ISO) 4217 standard are provided.

Enable any currency other than USD for use in Oracle Fusion Applications, for example for displaying monetary amounts, assigning to sets of books, entering transactions, and recording balances. Only USD is enabled by default.

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

Precision is the number of digits to the right of the decimal point used in regular currency transactions. Extended precision is the number of digits to the right of the decimal point used in calculations for this currency, and it must be greater than or equal to the standard precision. For example, USD would have 2 for precision because amounts are transacted as such, for example \$1.00. For calculations, for example adding USD amounts, you might want the application to be more precise than two decimal digits, and would enter an extended precision accordingly.

---

**Note**

Some applications use extended precision. Others, such as Oracle Fusion General Ledger, do not.

---



Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for the cent. This unit does not necessarily correspond to the precision for all currencies.

### **What's a statistical unit currency type?**

The statistical unit currency type is used only for the Statistical (STAT) currency. The Statistical currency is used to record statistics such as the number of items bought and sold. Statistical balances can be used directly in financial reports, allocation formulas, and other calculations.

## **Manage Conversion Rate Types**

### **Creating Conversion Rate Types: Critical Choices**

Maintain different conversion rates between currencies for the same period with the Oracle Fusion General Ledger conversion rate types functionality. Four predefined daily conversion rate types are seeded: Spot, Corporate, User, and Fixed, allowing you to use different rate types for different business needs. During journal entry, the conversion rate is provided automatically by the General Ledger based on the selected conversion rate type and currency, unless the rate type is user. For user rate types, you must enter the conversion rate. Define additional rate types as needed. Set your most frequently used rate type as the default. Conversion rate types cannot be deleted.

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

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

- Convert foreign currency journal amounts to ledger currency equivalents
- Convert journal amounts from source ledgers to reporting currencies or secondary ledgers
- Run Revaluation or Translation processes

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

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

## Enforce Inverse Relationships

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

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

## Select Pivot Currencies

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

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

## Select Contra Currencies

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

## Enable Cross Rates and Allow Cross Rate Overrides

Check the **Enable Cross Rates** check box to calculate conversion rates based on defined currency rate relationships. General Ledger calculates cross rates

based on your defined cross rate rules. Associate your cross rate rules with a conversion rate type, pivot currency, and contra currencies. Cross rates facilitate the creation of daily rates by automatically creating the rates between contra currencies based on their relationship to a pivot currency. If the **Enable Cross Rates** check box is changed to unchecked after entering contra currencies, the application stops calculating cross rates going forward for that particular rate type. All the earlier calculated cross rates for that rate type remain in the database unless you manually delete them.

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

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

### Maintain Cross Rate Rules

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

---

#### Note

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

---

## Using Rate Types: Examples

There are four seeded conversion rate types in Oracle Fusion applications:

- Spot
- Corporate
- User
- Fixed

### Scenario

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

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

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

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

---

#### Note

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

---

## FAQs for Manage Conversion Rate Types

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

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

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

Fixed	For rates where the conversion is constant between two currencies.
-------	--

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

## Manage Daily Rates

### Entering Daily Rates Manually: Worked Example

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

Oracle Application Development Framework (ADF) Desktop Integration is an Excel add-in that must be loaded onto each client. Because ADF Desktop Integration is an add-in to Microsoft Office products, you can use this feature only if they have Microsoft Excel 2007 or above, Internet Explorer 7 or above, and Microsoft Windows 7, XP Professional SP2, or Vista. Users must download the installation files from **Navigator - Tools - Download Desktop Integrator Installer**.

#### Entering Daily Rates

1. Navigate to the Period Close work area.  
Use the Period Close work area to link to close processes and currency process.
2. Click the Manage Currency Rates link.  
Use the Currency Rates Manager page to create, edit, and review currency rate types, daily rates, and historical rates.
3. Click the Daily Rates tab.  
Use the Daily Rates tab to review and enter currency rates.
4. Click the Create in Spreadsheet button.  
Use the Create Daily Rates spreadsheet to enter daily rates in a template that you can save and reuse.
5. Click in the From Currency field. Select the GBP - Pound Sterling list item.
6. Click in the To Currency field. Select the USD - US Dollar list item.
7. Click in the Conversion Rate field. Select the Spot list item
8. Click in the From Conversion field. Enter the desired information into the From Conversion field. Enter a valid value e.g. "8/1/2011".
9. Click in the To Conversion Date field. Enter the desired information into the To Conversion Date field. Enter a valid value e.g. "8/1/2011".

10. Click in the Conversion Rate field. Enter the desired information into the Conversion Rate field. Enter a valid value e.g. "1.33225".
11. Click the Submit button. Click the OK button twice.
12. Review the Record Status column to verify that all rows were loaded successfully.
13. Save the template to use to enter daily rates frequently. You can save the spreadsheet to either a local drive or a shared network drive.

## Updating Currency Rates: Worked Example

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

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

### Updating Currency Rates

1. Navigate to the Period Close work area.

Use the Period Close work area to link to close processes and currency process.

2. Click the Manage Currency Rates link.

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

3. Click the Daily Rates tab.

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

4. Click the From Currency list. Select the GBP - Pound Sterling list item.

5. Click the To Currency list. Select the USD - US Dollar list item.

6. Enter the dates for the daily rates that you are changing. Enter today's date.

7. Click the Rate Type list. Select the Spot list item.

8. Click the Search button.

9. Click in the Rate field. Enter the new rate of 1.7 in the Rate field.

10. Click in the Inverse Rate field. Enter the new inverse rate of 0.58822 in the Inverse Rate field.

11. Click the Save button.

# Common Applications Configuration: Define Enterprise Structures for Human Capital Management

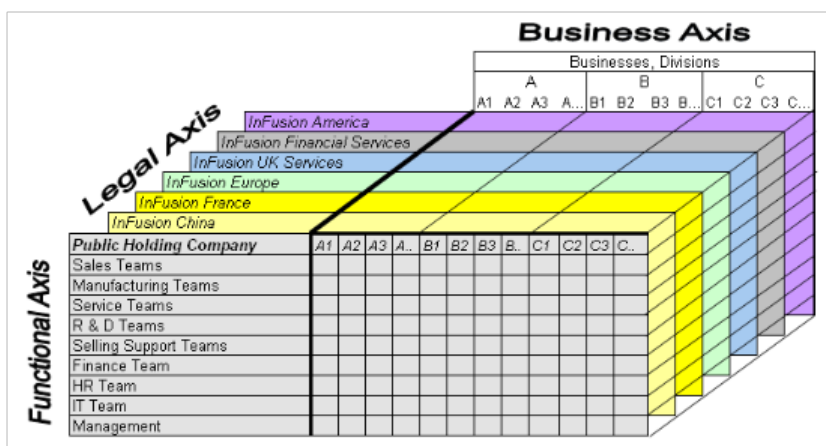
## Define Initial Configuration

### Enterprise Structures: Overview

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

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

Every enterprise has three fundamental structures, legal, managerial, and functional, that are used to describe its operations and provide a basis for reporting. In Oracle Fusion, these structures are implemented using the chart of accounts and organizations. Although 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, and departments aligned by your strategic objectives.



## Legal Structure

The figure above shows a typical group of legal entities, operating various business and functional organizations. Your ability to buy and sell, own, and employ comes from your charter in the legal system. A corporation is a distinct legal entity from its owners and managers. The corporation is owned by its shareholders, who may be individuals or other corporations. There are many other kinds of legal entities, 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 it is registered. When granted these privileges, legal entities are also assigned responsibilities to:

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

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

In the figure above, a separate card represents a series of registered companies. Each company, including the public holding company, InFusion America, must be registered in the countries where they do business. Each company consists of 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 their United Kingdom (UK) legal entity represent all businesses in that country. The divisions are linked across the cards so that a business can appear on some or all of the cards. For example, the air quality monitoring systems business might be operated by the US, UK, and France companies. The list of business divisions is on the Business Axis. Each company's card is also horizontally striped by functional groups, such as the sales team and the finance team. This functional list is called the Functional Axis. The overall image suggests that information might, at a minimum, be tracked by company, business, division, and function in a group environment. In Oracle Fusion Applications, the legal structure is implemented using legal entities.

## Management Structure

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

## Functional Structure

Straddling the legal and business organizations is a functional organization structured around people and their competencies. For example, sales, manufacturing, and service teams are functional organizations. This functional



structure is represented by the Functional Axis in the figure above. You reflect the efforts and expenses of your functional organizations directly on the income statement. Organizations must manage and report revenues, cost of sales, and functional expenses such as research and development (R&D) and selling, general, and administrative (SG&A) expenses. In Oracle Fusion Applications, the functional structure is implemented using departments and organizations, including sales, marketing, project, cost, and inventory organizations.

## Global Enterprise Configuration: Points to Consider

Start your global enterprise structure configuration by discussing what your organization's reporting needs are and how to represent those needs in the Oracle Fusion Applications. Consider deployment on a single instance, or at least, on as few instances as possible, to simplify reporting and consolidations for your global enterprises. The following are some questions and points to consider as you design your global enterprise structure in Oracle Fusion.

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

### Enterprise Configuration

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

### Business Unit Management

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

### Security Structure

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

### Compliance Requirements

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

## Modeling Your Enterprise Management Structure in Oracle Fusion: Example

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

## Scenario

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

## InFusion Corporation

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

## Analysis

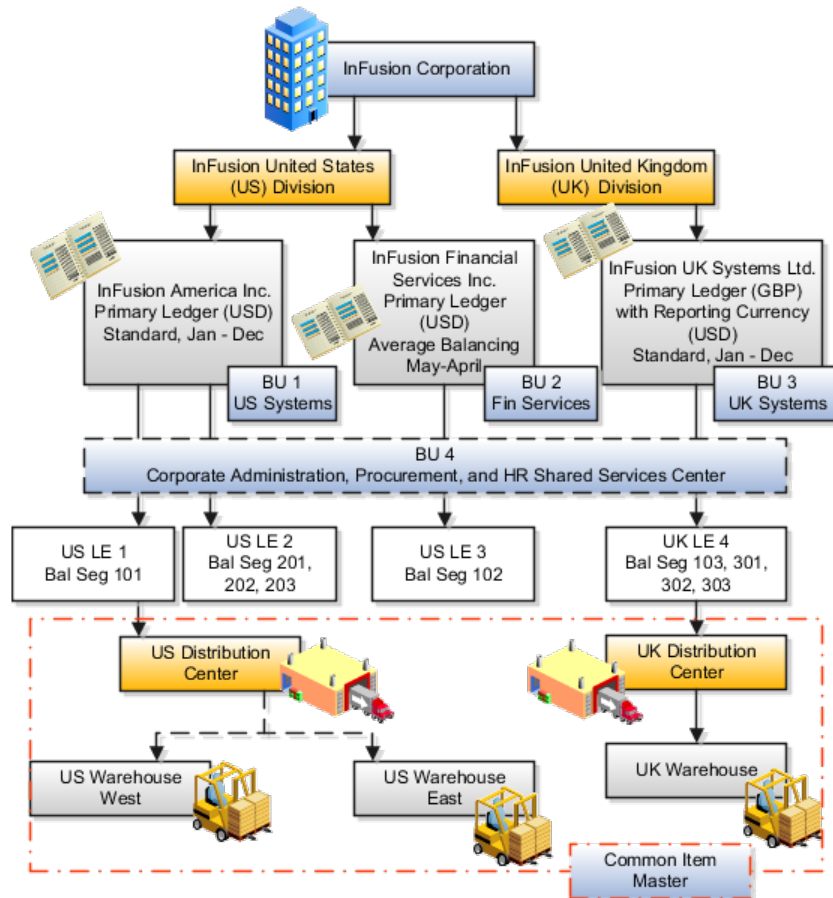
The following are elements you need to consider in creating your model for your global enterprise structure.

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

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

- Creation of three separate ledgers representing your separate legal entities:
  - InFusion America Inc.
  - InFusion Financial Services Inc.
  - InFusion UK Services Ltd.
- Consolidation of results for system components, installations, and maintenance product lines across the enterprise

- All UK general and administrative costs processed at the UK headquarters
- US Systems' general and administrative costs processed at US Corporate headquarters
- US Financial Services maintains its own payables and receivables departments



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

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

- The enterprise is mandatory because it serves as an umbrella for the entire implementation. All organizations are created within an enterprise.
- Legal entities are also mandatory. They can be optionally mapped to balancing segment values or represented by ledgers. Mapping balancing segment values to legal entities is mandatory if you plan to use the intercompany functionality.
- At least one ledger is mandatory in an implementation in which you record your accounting transactions.
- Business units are also mandatory because financial transactions are processed in business units.
- A shared service center is optional, but if used, must be a business unit.
- Divisions are optional and can be represented with a hierarchy of cost centers or by a second balancing segment value.
- Departments are mandatory because they track your employees.
- Optionally, add an item master organization and inventory organizations if you are tracking your inventory transactions in Oracle Fusion Applications.

---

**Note**

Some Oracle Fusion Human Capital Management and Customer Relationship Management implementations do not require recording of accounting transactions and therefore, do not require implementation of a ledger.

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**Note**

The InFusion Corporation is a legal entity but is not discussed in this example.

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## Designing an Enterprise Configuration: Example

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

### Scenario

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

### Enterprise Details

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

### Analysis

InFusion requires three divisions. The US division will cover the US locations. The Europe division will cover the UK and France. Saudi Arabia and the UAE will be covered by the Middle East division.

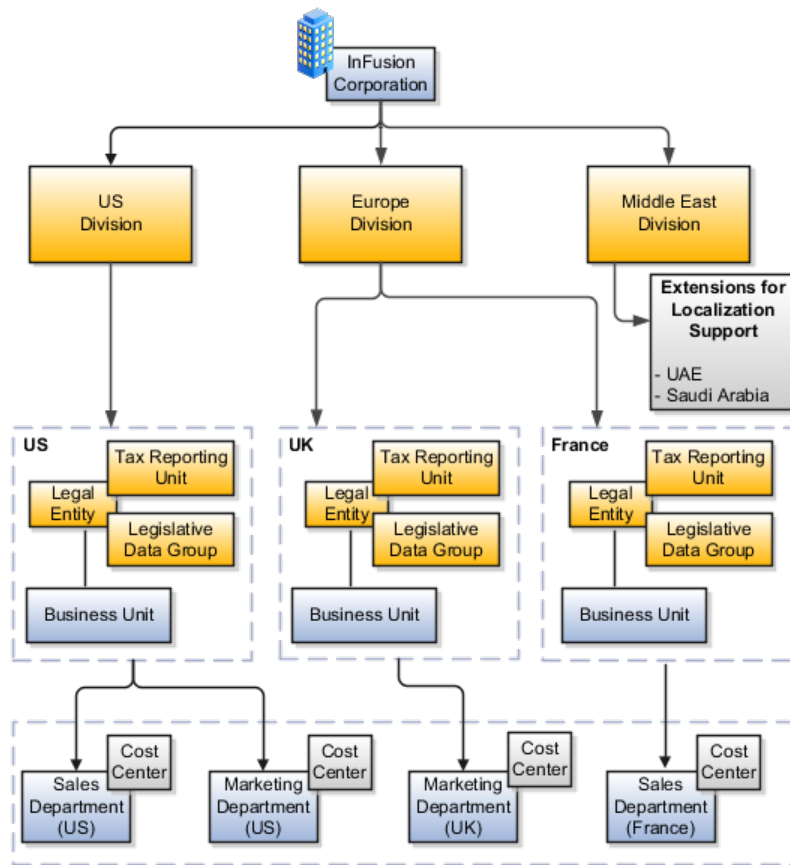
InFusion requires legal entities with legal employers, payroll statutory units, tax reporting units, and legislative data groups for the US, UK, France, Saudi Arabia, and UAE, in order to employ and pay its workers in those countries.

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

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

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

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

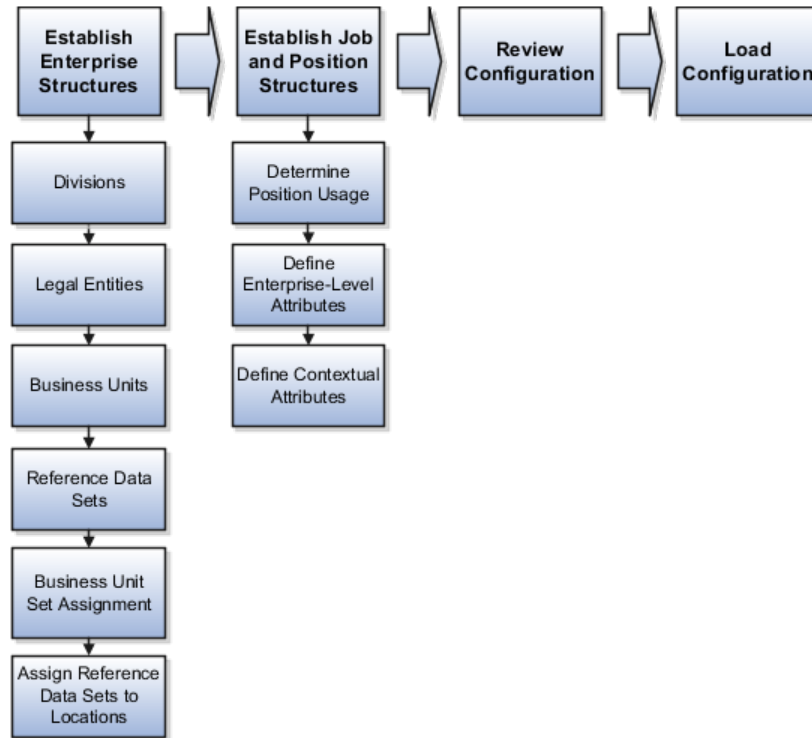


## Establishing Enterprise Structures Using the Enterprise Structures Configurator: Explained

The Enterprise Structures Configurator is an interview-based tool that guides you through the process of setting up a basic enterprise structure. By answering questions about your enterprise, the tool creates a structure of divisions, legal entities, business units, and reference data sets that reflects your enterprise.

structure. After you create your enterprise structure, you also follow a guided process to determine whether or not to use positions, and whether to set up additional attributes for jobs and positions. After you define your enterprise structure and your job and position structures, you can review them, make any necessary changes, and then load the final configuration.

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



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

### **Establish Enterprise Structures**

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

### **Establish Job and Position Structures**

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

enterprise, and then make a selection. After you select whether to use jobs or positions, the guided process prompts you to set up a descriptive flexfield structure for jobs, and for positions if you have chosen to use them. Descriptive flexfields enable you to capture additional information when you create jobs and positions.

### Review Configuration

Finally, you can review a summary of the results of the two interview processes. For each configuration, the online summary lists the divisions, legal entities, business units, reference data sets, and job and position structures that the application will create when you load the configuration.

For a more detailed analysis of a configuration, you can access the Technical Summary Report. This report lists the same information as the online summary, but also lists the following information that will be created by the application when you load the configuration, based on your configuration:

- Legislative data groups (the application creates one legislative data group for each country that is identified in the configuration.)
- Name of the legislative data group that will be assigned to the payroll statutory unit that is generated for each legal entity.
- Organization hierarchy.

The Technical Summary report also lists the default settings that will be loaded for these fields, which you access from the Manage Enterprise HCM Information task: **Worker Number Generation**, **Employment Model** and **Allow Employment Terms Override**. You can print the Technical Summary Report for each of your configurations and compare each scenario.

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#### Note

If your PDF viewer preferences are set to open PDFs in a browser window, the Technical Summary report replaces the Oracle Fusion application. Use your browser's Back button to return to the application.

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### Load Configuration

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

## Configuration Workbench: Explained

The Oracle Fusion Enterprise Structures Configurator (ESC) is an interview based tool to help you analyze how to represent your business in the Oracle Fusion Applications. The interview process poses questions about the name of your enterprise, legal structure, management reporting structure, and primary organizing principle for your business. Based on your answers, the applications suggest the best practices to use to implement business units in your enterprise. You can use or modify these answers to ensure that both your reporting and administrative goals are met in your Oracle Fusion deployment.

## Division: Explained

Managing multiple businesses requires that you segregate them by their strategic objectives and measure their results. Responsibility to reach objectives can be delegated along the management structure. Although related to your legal

structure, the business organizational hierarchies do not need to reflect directly the legal structure of the enterprise. The management entities and structure can include divisions and subdivisions, lines of business, and other strategic business units, and include their own revenue and cost centers. These organizations can be included in many alternative hierarchies and used for reporting, as long as they have representation in the chart of accounts.

## **Divisions**

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

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

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

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

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

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

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

# **Adding a New Division After Acquiring a Company: Example**

This example shows how to restructure your enterprise after acquiring a new division.

## **Scenario**

You are part of a senior management team at InFusion Corporation. InFusion is a global company with organizations in the United States (US), the United Kingdom (UK), France, China, Saudi Arabia, and the United Arab Emirates (UAE). Its main area of business is in the high tech industry, and it has just acquired a new company. You must analyze their current enterprise structure and determine what new organizations you need to create to accommodate the new company.



## Details of the Acquired Company

The acquired company is a financial services business based in Germany. Because the financial services business differs significantly from the high tech business, you want to keep the financial services company as a separate business with all the costs and reporting rolling up to the financial services division.

## Analysis

The following table summarizes the key decisions that you must consider when determining what new organizations to set up and how to structure the enterprise.

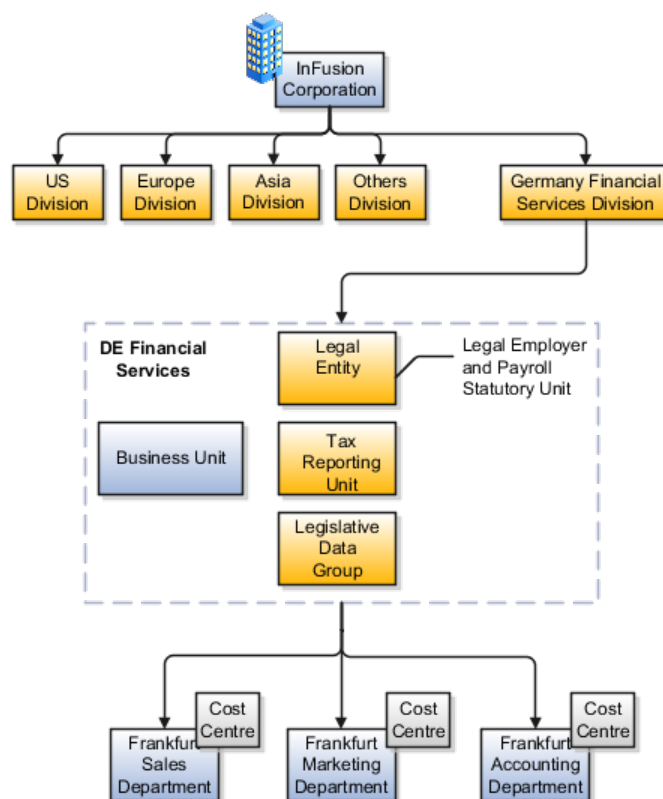
Decision to Consider	In This Example
Create location?	The financial services company is based in Frankfurt as are the departments, so you need to create only one location.
Create separate division?	Yes. Although the new division will exist within the current enterprise structure, you want to keep the financial services company as a separate line of business. Creating a separate division means you can manage the costs and reporting separately from the InFusion Corporation. It also means you do not have to modify any existing organizations in the enterprise setup.
Create business unit?	Yes. The financial services business requires you to create several jobs that do not exist in your high tech business. You can segregate the jobs that are specific to financial services in a new business unit.
How many departments?	The financial services company currently has three departments for sales, accounting, and marketing. As you have no plans to downsize or change the company, you can create three departments to reflect this structure.
How many cost centers?	Although you can have more than one cost center tracking the costs of a department, you decide to create one cost center for each department to track costs.
How many legal entities?	<p>Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, and income, pay transaction taxes, or perform intercompany trading. In this case, you need only one legal entity.</p> <p>You must define the legal entity as a legal employer and payroll statutory unit. As the new division operates in Germany only, you can configure the legal entity to suit Germany legal and statutory requirements.</p> <hr/> <p><b>Note</b></p> <p>When you identify the legal entity as a payroll statutory unit, the application transfers the legal reporting unit that is associated with that legal entity to Oracle Fusion HCM as a tax reporting unit.</p> <hr/>

Create legislative data group?	Yes. Because you currently do not employ or pay people in Germany, you must create one legislative data group to run payroll for the workers in Germany.
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Based on the analysis, you must create the following:

- One new division
- One new location
- Three new departments
- Three new cost centers
- One new legal entity
- One new legislative data group

The following figure illustrates the structure of InFusion Corporation after adding the new division and the other organizations.



## Legal Entities: Explained

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

Legal entities have the right to own property, the right to trade, the responsibility to repay debt, and the responsibility to 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
- Taking advantage of lower corporation taxation in some jurisdictions
- Preparing for acquisitions or disposals of parts of the enterprise
- Isolating one area of the business from risks in another area. For example, your enterprise develops property and also leases properties. You could operate the property development business as a separate legal entity to limit risk to your leasing business.

### **The Role of Your Legal Entities**

In configuring your enterprise structure in Oracle Fusion Applications, you need to understand that 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, and 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), who enforces statutory reporting requirements for public corporations.

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

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

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

Using the Enterprise Structures Configurator (ESC), you can create legal entities for your enterprise automatically, based on the countries in which divisions

of your business operate, or you can upload a list of legal entities from a spreadsheet.

## Automatically Creating Legal Entities

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

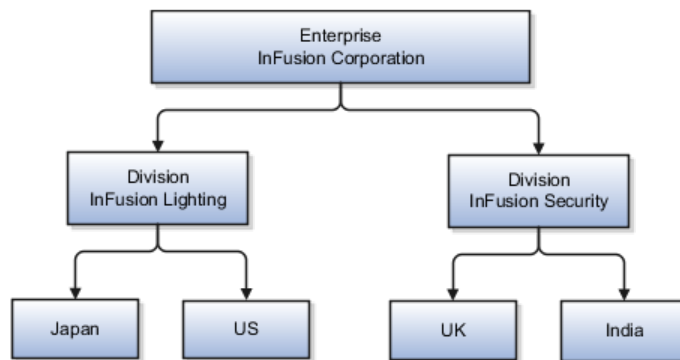
The application automatically creates the legal entities that you select, and identifies them as payroll statutory units and legal employers. For each country that you indicated that your enterprise operates in, and for each country that you created a location for, the application also automatically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

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

### Example: Creating Legal Entities Automatically

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

This figure illustrates InFusion Corporation's enterprise structure.



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

Country	Enterprise	InFusion Lighting	InFusion Security
Japan	No	Yes	No

US	No	Yes	No
UK	No	No	Yes
India	No	No	Yes

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

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

### Creating Legal Entities Using a Spreadsheet

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

## Legal Entity in Oracle Fusion: Points to Consider

Oracle Fusion Applications support the modeling of your legal entities. If you make purchases from or sell to other legal entities, define these other legal entities in your customer and supplier registers, which are part of the Oracle Fusion Trading Community Architecture. When your legal entities are trading with each other, you represent both of them as legal entities and also as customers and suppliers in your customer and supplier registers. Use legal entity relationships to determine which transactions are intercompany and require intercompany accounting. Your legal entities can be identified as legal employers and therefore, are available for use in Human Capital Management (HCM) applications.

There are several decisions that need to be considered in creating your legal entities.

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

- Legal entity and payroll reporting
- Legal reporting units

## **The Importance of Legal Entity in Transactions**

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

For example, the creation of a sales order creates an obligation for the legal entity that books the order to deliver the goods on the acknowledged date, and an obligation of the purchaser to receive and pay for those goods. Under contract law in most countries, damages can be sought for both actual losses, putting the injured party in the same state as if they had not entered into the contract, and what is called loss of bargain, or the profit that would have made on a transaction.

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

## **Legal Entity and Its Relationship to Business Units**

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

In some cases, your legal entity is inferred from your business unit that is processing the transaction. For example, your business unit A agrees on terms for the transfer of inventory to your business unit B. This transaction is binding on your default legal entities assigned to each business unit. Oracle Fusion Procurement, Oracle Fusion Projects, and Oracle Fusion Supply Chain applications rely on deriving the legal entity information from the business unit.

## **Legal Entity and Its Relationship to Divisions**

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

## **Legal Entity and Its Relationship to Ledgers**

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

## Legal Entity and Its Relationship to Balancing Segments

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

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

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

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

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### Note

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

To use this feature for disposal of a part of a legal entity, implement multiple balancing segments at the beginning of the legal entity's corporate life or on conversion to Oracle Fusion.

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If you decided to account for each legal entity in a separate ledger, there is no requirement to identify the legal entity with a balancing segment value within the ledger.

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### Note

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

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## **Legal Entity and Its Relationship to Consolidation Rules**

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

## **Legal Entity and its Relationship to Intercompany Transactions**

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

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

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### **Note**

In the Oracle Fusion Supply Chain applications, model intercompany relationships using business units, from which legal entities are inferred.

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## **Legal Entity and Its Relationship to Worker Assignments and Legal Employer**

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

## **Legal Entity and Payroll Reporting**

Your legal entities are required to pay payroll tax and social insurance such as social security on your payroll. In Oracle Fusion Applications, you can register payroll statutory units to pay and report on payroll tax and social insurance on behalf of many of your legal entities. As the legal employer, you might be required to pay payroll tax, not only at the national level, but also at the local level. You meet this obligation by establishing your legal entity as a place of



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

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

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

### **Automatically Creating Business Units**

To create business units automatically, you must specify the level at which to create business units. Business units within your enterprise may be represented at the business function level, such as Sales, Consulting, Product Development, and so on, or they may be represented at a more detailed level, where a business unit exists for each combination of countries in which you operate and the functions in those countries.

You can automatically create business units at the following levels:

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

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

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

After you select a business unit level, the application generates a list of business units, and you select the ones you want the application to create. If you select a

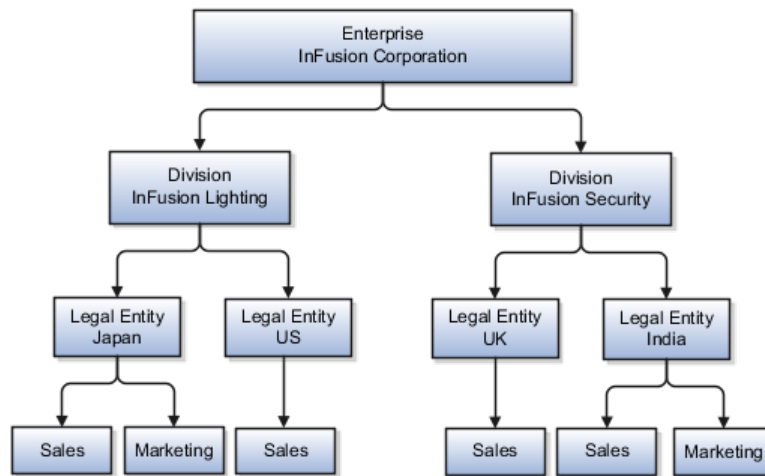
level that has two components, such as country and division, then the system displays a table listing both components, and you select the check boxes at the intersections of the components.

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

### Example: Selecting Business Unit Levels

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

This figure illustrates InFusion Corporation's enterprise structure.



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

Business Unit Level	Suggested Business Units
Country	<ul style="list-style-type: none"> <li>• US</li> <li>• UK</li> <li>• Japan</li> <li>• India</li> </ul>
Country and Division	<ul style="list-style-type: none"> <li>• InFusion Lighting: Japan</li> <li>• InFusion Lighting: US</li> <li>• InFusion Security: UK</li> <li>• InFusion Security: India</li> </ul>

Country and business function	<ul style="list-style-type: none"> <li>• Sales: Japan</li> <li>• Marketing: Japan</li> <li>• Sales: US</li> <li>• Sales: UK</li> <li>• Marketing: India</li> <li>• Sales: India</li> </ul>
Division	<ul style="list-style-type: none"> <li>• InFusion Lighting</li> <li>• InFusion Security</li> </ul>
Division and Legal Entity	<ul style="list-style-type: none"> <li>• InFusion Lighting: Japan</li> <li>• InFusion Lighting: US</li> <li>• InFusion Security: UK</li> <li>• InFusion Security: India</li> </ul>
Division and Business Function	<ul style="list-style-type: none"> <li>• InFusion Lighting, Sales</li> <li>• InFusion Lighting, Marketing</li> <li>• InFusion Security, Sales</li> <li>• InFusion Security, Marketing</li> </ul>
Business Function	<ul style="list-style-type: none"> <li>• Sales</li> <li>• Marketing</li> </ul>
Legal Entity	<ul style="list-style-type: none"> <li>• Legal Entity: Japan</li> <li>• Legal Entity: US</li> <li>• Legal Entity: UK</li> <li>• Legal Entity India</li> </ul>
Legal Entity and Business Function	<ul style="list-style-type: none"> <li>• Legal Entity: Japan, Sales</li> <li>• Legal Entity: Japan, Marketing</li> <li>• Legal Entity: US, Sales</li> <li>• Legal Entity: UK, Sales</li> <li>• Legal Entity India, Marketing</li> <li>• Legal Entity India, Sales</li> </ul>

### Manually Creating Business Units

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

## Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can

process transactions on behalf of many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy. In Oracle Fusion Applications, you assign your business units to one primary ledger. For example, if a business unit is processing payables invoices they will need to post to a particular ledger. This assignment is mandatory for your business units with business functions that produce financial transactions.

In Oracle Fusion Applications, use business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Anchors the sharing of sets of reference data across applications

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

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your ledger definition, because the uniqueness of sequencing is only ensured within a ledger. In these cases, define a single ledger and assign one legal entity and business unit.

In summary, use business units in the following ways:

- Management reporting
- Processing of transactions
- Security of transactional data
- Reference data definition and sharing

### **Brief Overview of Business Unit Security**

Business units are used by a number of Oracle Fusion Applications to implement data security. You assign data roles to your users to give them access to data in business units and permit them to perform specific functions on this data. When a business function is enabled for a business unit, the application can trigger the creation of data roles for this business unit based on the business function's related job roles.

For example, if a payables invoicing business function is enabled, then it is clear that there are employees in this business unit that perform the function of payables invoicing, and need access to the payables invoicing functionality. Therefore, based on the correspondence between the business function and the

job roles, appropriate data roles are generated automatically. Use Human Capital Management (HCM) security profiles to administer security for employees in business units.

## **Creating Reference Data Sets in the Enterprise Structures Configurator: Explained**

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

A standard set called the Enterprise set is predefined.

### **Common Set**

The common set is a predefined set that enables you to share reference data across business units. When you select set-enabled data at the transaction level, the list of values includes data in both the common set and the set associated with the data type for the business unit on the transaction. For example, when you create an assignment, the list of values for grades will include both grades in the common set and in the set that is assigned to grades for the business unit in which you creating the assignment.

## **Reference Data Sets and Sharing Methods: Explained**

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses, thereby reducing the administrative burden and decreasing the time needed to implement new business units. For example, you can share sales methods, transaction types, or payment terms across business units or selected other data across asset books, cost organizations, or project units.

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

### **Reference Data Sets**

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

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each

business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

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

## Reference Data Sharing Methods

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

- Assignment to one set only, no common values allowed. The simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. The most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units without the need to be explicitly assigned the transaction types to each business unit. In addition, you can assign a business unit specific set of transaction types. At transaction entry, the list of values for transaction types includes transaction types from the set assigned to the business unit, as well as transaction types assigned to the common set that is shared across all business units.
- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but the payment term Net 15 is assigned to only your corporate business unit specific set. At transaction entry, the list of values for payment terms consists of only one set of data; the set that is assigned to the transaction's business unit.

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

## Business Units and Reference Data Sets: How They Work Together

Reference data sharing is a feature within Oracle Fusion that enables you to group set-enabled reference data such as jobs or grades so that the data can be

shared across different parts of the organization. Sets also enable you to filter reference data at the transaction level so that only data that has been assigned to certain sets is available to select. To filter reference data, Oracle Fusion Human Capital Management (HCM), applications use the business unit on the transaction. To set up reference data sharing in Oracle Fusion HCM, you create business units and sets, and then assign the sets to the business units.

### Common Set Versus Specific Sets

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

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

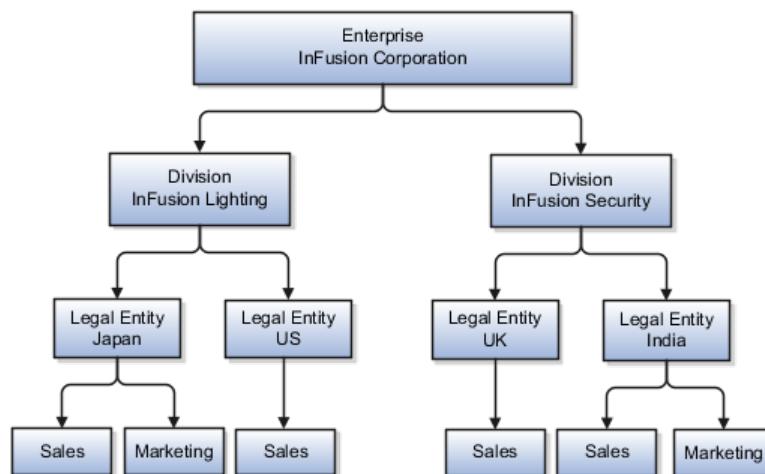
### Business Unit Set Assignment

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

### Example: Assigning Sets to Business Units

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

The following figure illustrates the structure of InFusion Corporation.



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

- Sales\_Japan
- Marketing\_Japan

- Sales\_US
- Sales\_UK
- Marketing\_India
- Sales\_India

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

- Sales\_Japan\_Set
- Mktg\_Japan\_Set
- Sales\_US\_Set
- Sales\_UK\_Set
- Mktg\_India\_Set
- Sales\_India\_Set
- Grades\_Set

InFusion assigns business units to sets as follows:

Business Unit	Default Set Assignment	Set Assignment Overrides
Sales_Japan	Sales_Japan_Set for grades, departments, and locations	Jobs set for jobs
Marketing_Japan	Mktg_Japan_Set for grades, departments, and locations	None
Sales_US	Sales_US_Set for grades, departments, and locations	Jobs set for jobs
Sales_UK	Sales_UK_Set for grades, departments, and locations	Jobs set for jobs
Marketing_India	Mktg_India_Set for grades, departments, and locations	None
Sales_India	Sales_India_Set for grades, departments, and locations	Jobs set for jobs

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

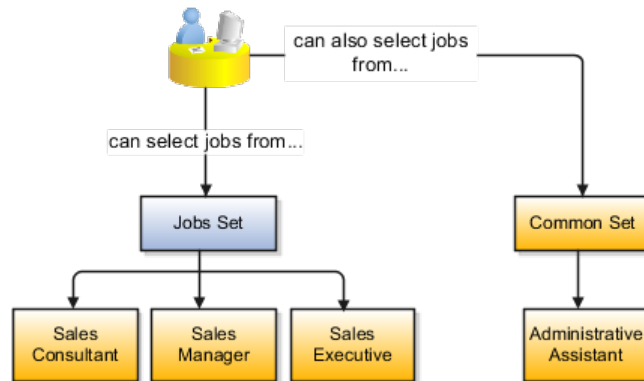
When using grades, departments, and locations at the transaction level, users will be able to select data from the set that corresponds to the business unit that they enter on the transaction, and any data that was assigned to the Common Set. For example, for transactions for the Marketing\_Japan business unit, grades,



locations, and departments from the Mktg\_Japan\_Set will be available to select, as well as from the Common Set.

When using jobs at the transaction level, users will be able to select jobs from the Jobs set and from the Common Set when they enter one of the Sales business units on the transaction. For example, when a manager hires an employee for the Sales\_India business unit, the list of jobs will be filtered to show jobs from the Jobs set and from the Common Set.

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



## Jobs and Positions: Critical Choices

Jobs and positions represent roles that enable you to distinguish between tasks and the individuals who perform those tasks. The key to whether to use jobs or positions is how each is used. Positions offer a well-defined space independent of the person performing the job. Jobs are a space defined by the person. A job can be defined globally in the Common Set, whereas a position is defined within one business unit.

You can update the job and department of a position at any time. This is useful if you hire someone into a new role and want to transfer the position to another department.

During implementation, one of the earliest decisions you will make is whether to use jobs or a combination of jobs and positions. The determinants for this decision are:

- The primary industry of your enterprise
- How you manage your people

### Primary Industry of Your Enterprise

Primary industries and how they usually set up their workforce are listed in the table below.

Primary Industry	Workforce Setup
Mining	Positions

Utilities	Positions
Manufacturing	Positions
Retail Trade	Positions
Transportation and Warehousing	Positions
Educational Services	Positions
Public Transportation	Positions
Agriculture, Forestry, Fishing, and Hunting	Jobs
Construction	Jobs
Wholesale Trade	Jobs
Information	Jobs
Finance and Insurance	Jobs
Professional, Scientific, and Technical Services	Jobs
Management of Companies and Enterprises	Jobs
Administrative and Support and Waste Management and Remediation Services	Jobs
Arts, Entertainment, and Recreation	Jobs
Accommodation and Food Services	Jobs
Other Services (Except Public Administration)	Jobs

## Management of People

The following table displays suggestions of whether to use jobs or a combination of jobs and positions based on your industry and how you manage your employees when there is turnover.

Industry	We always replace employees by rehiring to same role	We replace the head count, but the manager can use the head count in a different job	We rehire to the same position, but the manager can request a reallocation of budget to a different post
Project (An industry that supports project-based forms of organization in which teams of specialists from both inside and outside the company report to project managers.)	Positions	Jobs	Jobs
Controlled (An industry that is highly structured in which all aspects of work and remuneration are well organized and regulated.)	Positions	Positions	Positions
Manufacturing	Positions	Jobs	Positions
Retail	Positions	Jobs	Positions
Education	Positions	Jobs	Positions

Other	Positions	Jobs	Jobs
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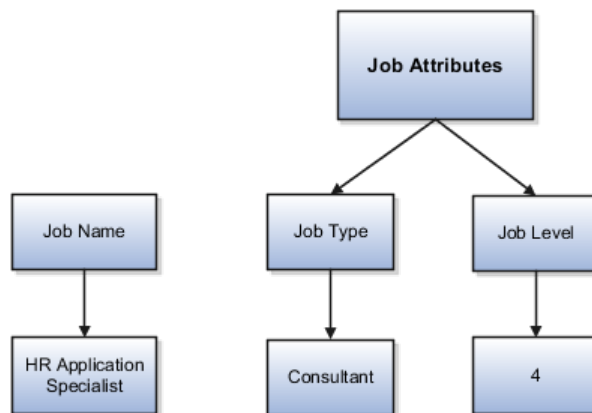
## Job and Position Structures: Explained

Job and position structures identify the descriptive flexfield structure that enables you to specify additional attributes that you want to capture when you define jobs and positions. Job and position attributes provide further detail to make jobs and positions more specific. You also use attributes to define the structure of your jobs and positions. You can specify attributes at the enterprise level for jobs and positions, at the business unit level for positions, and at the reference data set level for jobs. Job and position structures are optional.

### Enterprise-Level Job Attributes

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

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

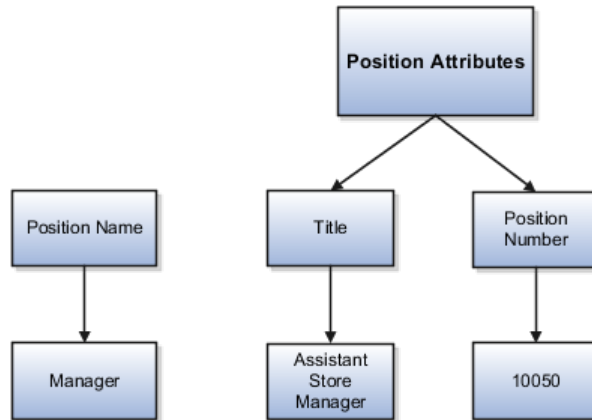


### Enterprise-Level Position Attributes

Position attributes at the enterprise level are similar to those for jobs. Each position that you define identifies a specific role in the enterprise, which you can manage independently of the person in the position, and it will belong to one specific department or organization. The name of each position must be unique. To simplify the process of managing unique names for positions, set up enterprise-level attributes to identify separate components of the position name. For example, you can set up an attribute for position title and one for position number. When defining the attributes that make up the structure of a position

name you should also consider if any of your attributes are part of the definition of a common job type. Using job types for a position can help you manage common information that applies to many different positions. For example you can define a job type of Manager.Level 1 and use this for comparison of positions across departments or lines or business, or for setting common job requirements. You can then define multiple manager type positions in your HR department, each of which has responsibility for a different management function or group.

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



### Business Unit-Level Attributes for Positions

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

### Reference Data Set-Level Attributes for Jobs

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

## Jobs: Example

Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

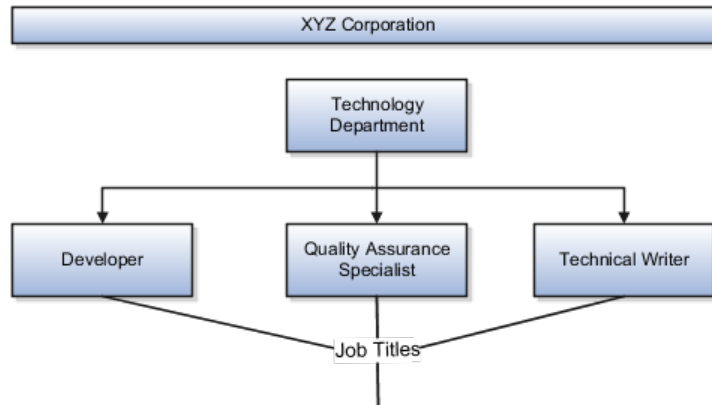
### Software Industry

For example, XYZ Corporation has a director over the departments for developers, quality assurance, and technical writers. Recently, three developers

have left the company. The director decides to redirect the head count to other areas. Instead of hiring all three back into development, one person is hired to each department, quality assurance, and technical writing.

In software industries, the organization is fluid. Using jobs gives an enterprise the flexibility to determine where to use head count, because the job only exists through the person performing it. In this example, when the three developers leave XYZ Corporation, their jobs no longer exist, therefore the corporation has the flexibility to move the headcount to other areas.

This figure illustrates the software industry job setup.



## Positions: Examples

Positions are typically used by industries that use detailed approval rules, which perform detailed budgeting and maintain head counts, or have high turnover rates.

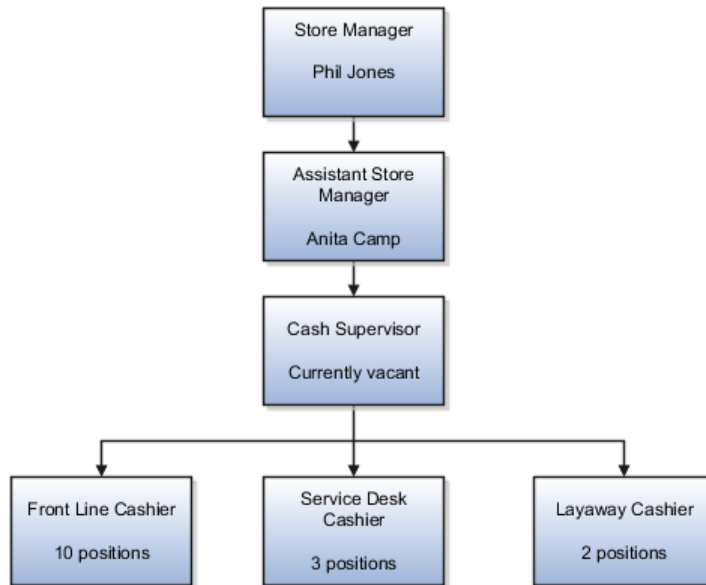
### Retail Industry

ABC Corporation has high turnover. It loses approximately 5% of their cashiers monthly. The job of cashier includes three positions: front line cashier, service desk cashier, and layaway cashier. Each job is cross trained to take over another cashier position. When one cashier leaves from any of the positions, another existing cashier from the front line, service desk or layaway can assist where needed. . But to ensure short lines and customer satisfaction, ABC must replace each cashier lost to turnover.

Since turnover is high in retail it is better for this industry to use positions. There is an automatic vacancy when an employee terminates employment. The position exists even when there are no holders. This is important if the person who leaves the company is a manager or supervisor with direct reports. All direct reports continue reporting to the position even if it is empty. You do not need to reassign these employees to another manager or supervisor; the replacement manager is assigned to the existing position.

Also, an advantage to using positions is that when you hire somebody new many of the attributes are defaulted in from the position. This speeds up the hiring process.

This figure illustrates the retail position setup.

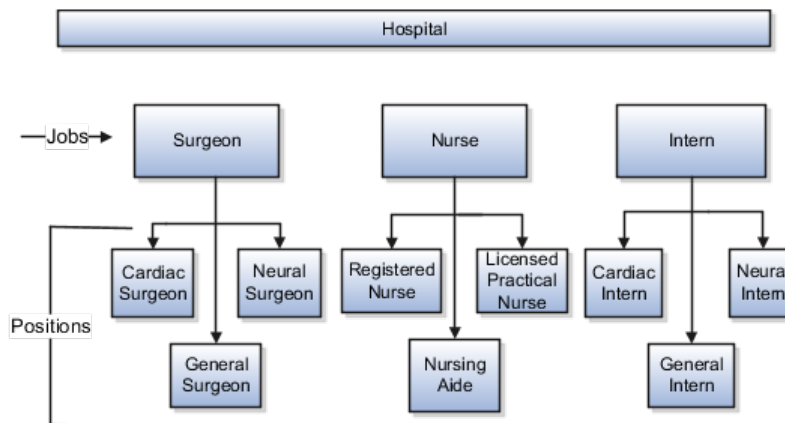


## Health Care Industry

The hospital has a structured head count and detailed budgeting. For example, a specific number of surgeons, nurses, and interns of various types are needed. These positions need to be filled in order for the hospital to run smoothly. Use jobs and positions if you need to apply detailed head count rules.

Health care is an industry that needs to regulate employment, roles, and compensation according to strict policies and procedures. Fixed roles tend to endure over time, surviving multiple incumbents. Industries that manage roles rather than individuals, where roles continue to exist after individuals leave, typically model the workforce using positions.

This figure illustrates the hospital position setup.



## FAQs for Define Initial Configuration

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

The Enterprise Structures Configurator is an interview-based tool that guides you through setting up divisions, legal entities, business units, and reference

data sets. The tool also enables you to assign reference data sets to business units and locations. You can set up multiple configurations to perform what-if scenarios, and then print each configuration to compare the resulting enterprise structure. If you do not use the Enterprise Structures Configurator, then you must set up your enterprise structure using the individual tasks that correspond to each enterprise component. In addition, you will not be able to set up multiple configurations and compare different scenarios. It is recommended that you use the Enterprise Structures Configurator.

### **What's an ultimate holding company?**

The legal entity that represents the top level in your organization hierarchy, as defined by the legal name entered for the enterprise. This designation is used only to create an organization tree, with the ultimate holding company as the top level, divisions and country holding companies as the second level, and legal employers as the third level.

### **What happens if I override the set assignment?**

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

### **What's the default reference data set?**

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

## **Define Reference Data Sharing**

### **Reference Data Sharing: Explained**

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

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

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of managers in different business units setting up the

same grades, XYZ Corporation decides to create a set called Grades and assign the grades reference data group for all business units in the organization to the Grades set, so that the grades can be shared.

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**Note**

For specific information on configuring reference data sharing for a particular object or product, refer to its product documentation.

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## FAQs for Define Reference Data Sharing

### What reference data objects can be shared across business units?

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

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



Receivables	Remit To Address	Assignment to one set only, with common values
Receivables	Revenue Contingencies	Assignment to one set only, with common values
Receivables	Transaction Source	Assignment to one set only, with common values
Receivables	Transaction Type	Assignment to one set only, with common values
Advanced Collections	Collections Setups	Assignment to one set only, with common values
Advanced Collections	Dunning Plans	Assignment to one set only, with common values
Tax	Tax Classification Codes	Assignment to one set only, with common values
Performance Management	Performance Templates	Assignment to one set only, with common values
Human Resources	Departments	Assignment to one set only, with common values
Human Resources	Jobs	Assignment to one set only, with common values
Human Resources	Locations	Assignment to one set only, with common values
Human Resources	Grades	Assignment to one set only, with common values
Project Billing	Project and Contract Billing	Assignment to multiple sets, common values not allowed
Project Foundation	Project Accounting Definition	Assignment to one set only, no common values allowed
Project Foundation	Project Rates	Assignment to one set only, with common values
Distributed Order Orchestration	Hold Codes	Assignment to one set only, with common values
Distributed Order Orchestration	Orchestration Process	Assignment to one set only, with common values

## Define Legal Jurisdictions and Authorities for Human Capital Management

### Jurisdictions and Legal Authorities: Explained

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

#### Legal Jurisdictions and Authorities

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

Payroll. When you first create a legal entity, the Oracle Fusion Legal Entity Configurator automatically creates one legal reporting unit for that legal entity with a registration.

## Jurisdictions: Explained

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

Types of jurisdictions are:

- Identifying Jurisdiction
- Income Tax Jurisdiction
- Transaction Tax Jurisdiction

### Identifying Jurisdiction

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

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

### Income Tax Jurisdiction

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

### Transaction Tax Jurisdiction

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

## Legal Authorities: Explained

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

### Legal Authorities

For example, the Internal Revenue Service is the authority for enforcing income tax laws in United States. In some countries, such as India and Brazil, you

are required to print legal authority information on your tax reports. Legal authorities are defined in the Oracle Fusion Legal Entity Configurator. Tax authorities are a subset of legal authorities and are defined using the same setup flow.

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

## Creating Legal Jurisdictions, Addresses and Authorities: Examples

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

### Legal Jurisdictions

Create a legal jurisdiction by following these steps:

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

### Legal Addresses for Legal Entities and Reporting Units

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

1. Navigate to the **Manage Legal Address** page from the **Setup and Maintenance** work area by querying on the **Manage Legal Address** task and selecting **Go to Task**.
2. Select **Create**.
3. Select **Country**.
4. Enter **Address Line 1**, Oracle Parkway.
5. Optionally enter **Address Line 2**, and **Address Line 3**.
6. Enter or Select **Zip Code**, 94065.

7. Select **Geography** 94065 and **Parent Geography** Redwood Shores, San Mateo, CA.
8. Optionally enter a **Time Zone**, US Pacific Time.
9. Select **OK**.
10. Select **Save and Close**.

## Legal Authorities

Create a legal authority by following these steps:

1. Navigate to the **Manage Legal Authorities** page from the **Setup and Maintenance** work area by querying on the **Manage Legal Authorities** task and selecting **Go to Task**.
2. Enter the **Name**, California Franchise Tax Board.
3. Enter the **Tax Authority Type**, Reporting.

---

### Note

Create an address for the legal authority.

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

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### Note

You can optionally enter **Address Purpose** details.

- 
17. Select **Add Row**.
  18. Select **Purpose**.
  19. The **Purpose from Date** will default to today's date.
  20. Optionally enter a **Purpose to Date**.

21. Select **OK**.
22. Select **Save and Close**.

## Creating Legal Entities, Registrations, and Reporting Units: Examples

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

### Legal Entity

From within an implementation project, create a legal entity by following these steps:

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#### Note

Working within an implementation project is required because you select a scope value within an implementation project. The scope value is the legal entity that you will create or select to work within for your implementation project.

- 
1. Navigate to an implementation project that contains the **Define Legal Entities** task list from the **Setup and Maintenance** work area.
  2. Select **Go to Task** for the **Define Legal Entities** task list within the implementation project.

---

#### Note

The following message appears:

You must first select a scope value to perform the task.

- Select and add an existing scope value to the implementation project.
- Create a new scope value and then add it to the implementation project.

- 
3. Select **Create New**.
  4. From the **Manage Legal Entities** page select **Create**.
  5. Accept the default **Country**, United States.
  6. Enter **Name**, InFusion USA West.
  7. Enter **Legal Entity Identifier**, US0033.
  8. Optionally enter **Start Date**. When the start date is blank the legal entity is effective from the creation date.
  9. Optionally enter an **End Date**.
  10. Optionally, if your legal entity should be registered to report payroll tax and social insurance, select the **Payroll statutory unit** check box.
  11. Optionally, if your legal entity has employees, select the **Legal employer** check box.

12. Optionally, if this legal entity is not a payroll statutory unit, select an existing payroll statutory unit to report payroll tax and social instance on behalf of this legal entity.

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**Note**

Enter the **Registration Information**.

- 
13. Accept the default **Identifying Jurisdiction**, United States Income Tax.
  14. Search for and select a **Legal Address**, 500 Oracle Parkway, Redwood Shores, CA 94065.

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**Note**

The legal address must have been entered previously using the **Manage Legal Address** task.

- 
15. Select **OK**.
  16. Optionally enter a **Place of Registration**.
  17. Enter the **EIN or TIN**.
  18. Enter the **Legal Reporting Unit Registration Number**.
  19. Select **Save and Close** to navigate back to the Manage Legal Entities page.
  20. Select **Done** to return to your implementation project. An issue with the done button has been fixed in 11g Release 1 (11.1.4).
  21. In the **Legal Entity** choice list in the implementation project (just below the implementation project name and code), click **Select and Add Legal Entity** to choose the legal entity that you just created, and set the scope for the remainder of your setup.
  22. Search for and select your legal entity from the **Manage Legal Entities** page.
  23. Select **Save and Close**.

This sets the scope for your task list to the selected legal entity, as indicated in the **Legal Entity** choice list above the **Tasks and Task Lists** table.

## Legal Entity Registrations

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

1. Navigate to your implementation project from the **Setup and Maintenance** work area. Verify that the parent **Legal Entity** scope value is set correctly.
2. Expand the **Define Legal Entities** task list within the implementation project.
3. Select **Manage Legal Entity Registrations Go to Task**.

4. Select **Create**.
5. Enter **Jurisdiction**.
6. Enter **Registered Address**.
7. Enter **Registered Name**.
8. Optionally enter **Alternate Name**, **Registration Number**, **Place of Registration**, **Issuing Legal Authority**, and **Issuing Legal Authority Address**, **Start Date**, and **End Date**.
9. **Save and Close**.

## Legal Reporting Unit

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

1. Navigate to your implementation project from the **Setup and Maintenance** work area. Verify that the parent **Legal Entity** scope value is set correctly.
2. Select **Go to Task** for the **Define Legal Entities** task list within the implementation project.
3. Select **Create**.
4. Enter **Territory**, United States.
5. Enter **Name**.
6. Optionally enter a **Start Date**.

---

### Note

Enter **Registration Information**.

- 
7. Search for and select **Jurisdiction**.

---

### Note

Enter **Main Legal Reporting Unit** information.

- 
8. Select the value Yes or No for the **Main Legal Reporting Unit**. Set value to yes only if you are creating a new main (primary) legal reporting unit.
  9. Enter the **Main Effective Start Date**, 1/1/11.
  10. **Save and Close**.

## Define Legal Entities for Human Capital Management

### HCM Organization Models: Examples

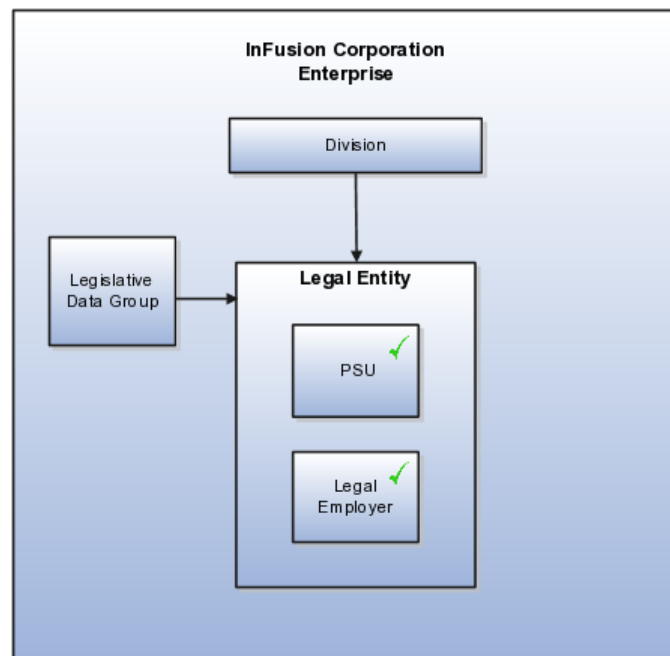
These examples illustrate different models for human capital management (HCM) organizations. Each example includes a legislative data group (LDG).

LDGs are not an organization classification, but they are included in the example to show how you associate them with a payroll statutory unit to partition payroll data.

### Simple Configuration

This example illustrates a simple configuration that does not include any tax reporting units. The legal employer and payroll statutory units are the same, sharing the same boundaries. Reporting can only be done at a single level. Countries such as Saudi Arabia and the United Arab Emirates (UAE) might use this type of model, as reporting in these countries is done at the legal entity level.

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



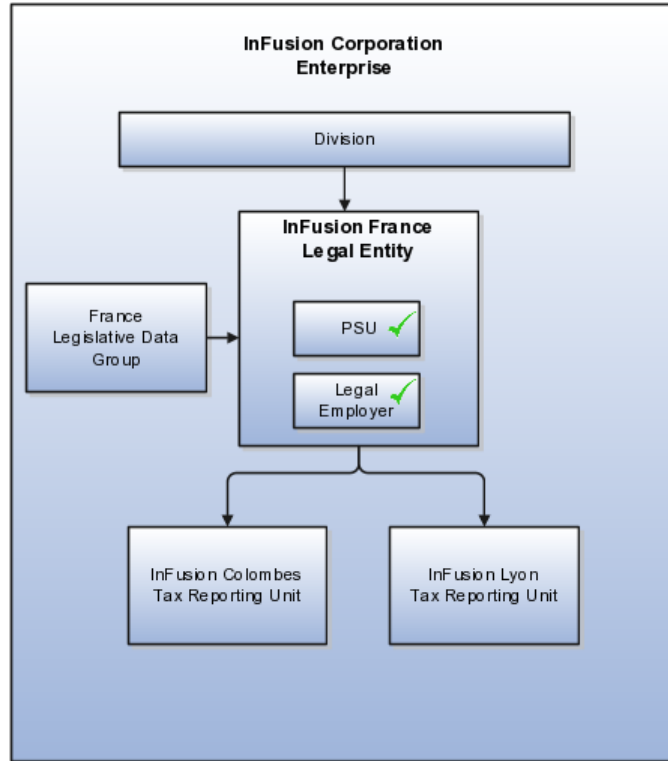
### Multiple Legal Employers and Tax Reporting Units Under One Payroll Statutory Unit

This example illustrates a more complex configuration. In this enterprise, one legal entity, InFusion US, is defined as a payroll statutory unit and has two separate legal entities, which are also legal employers. This model shows multiple legal employers that are associated with a single payroll statutory unit, and how tax reporting units are always associated with a specific legal employer (or employers) through the payroll statutory unit. The implication is that payroll statutory reporting boundaries vary from human resources (HR) management, and the balances can be categorized separately by either payroll statutory unit, legal employer, or tax reporting unit. This configuration is based on tax filing requirements, as some tax-related payments and reports are associated with a higher level than employers. An example of a country that might use this model is the US.

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



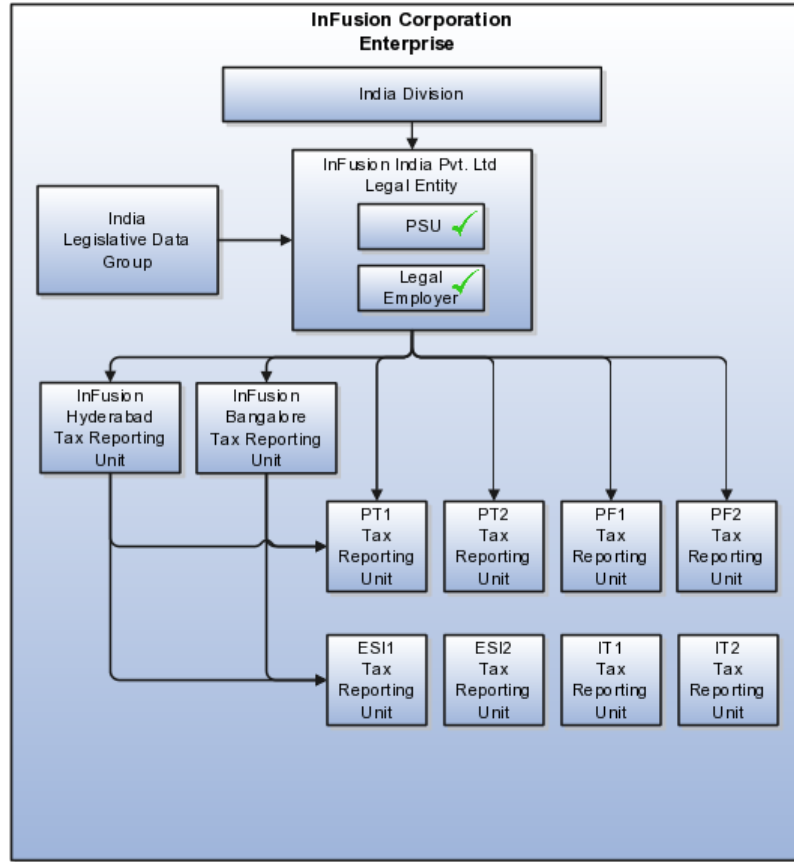




### One Payroll Statutory Unit with Several Tax Reporting Units That Are Independent from the Legal Employer

In this model, the enterprise has one legal entity, and legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently. Using this model, you would not typically need to report on tax reporting unit balances within a legal employer, and balances can be categorized by either or both organizations, as required. An example of a country that might use this model is India.

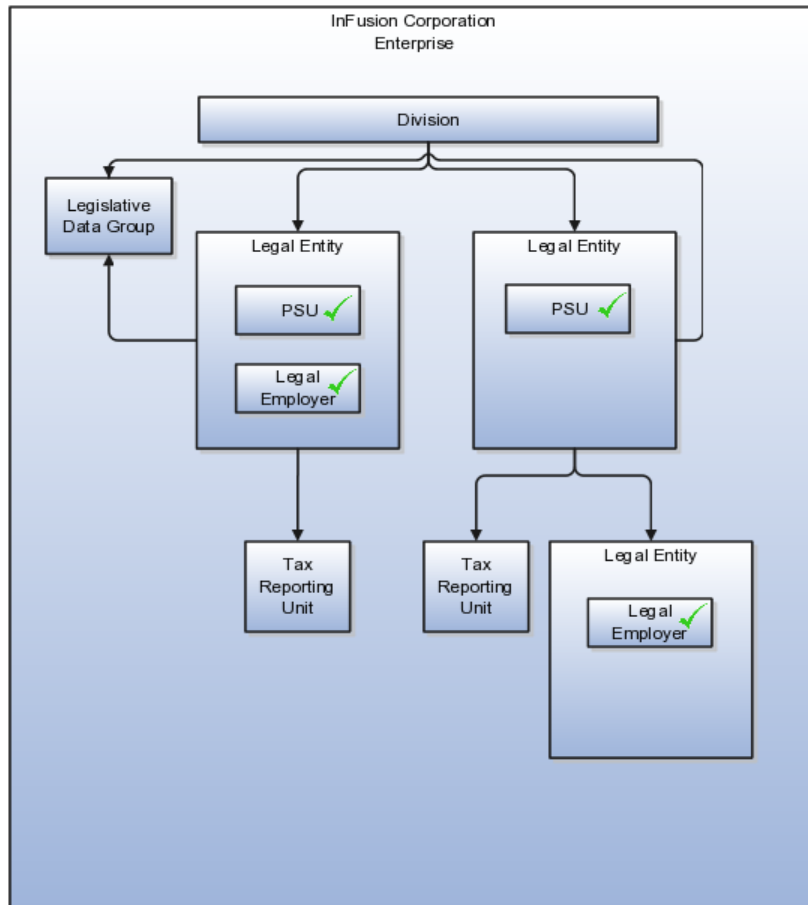
This figure illustrates an enterprise with one legal entity that is a payroll statutory unit and a legal employer, and the tax reporting units are independent from the legal employer.



### Multiple Payroll Statutory Units with Several Tax Reporting Units that are Independent from the Legal Employer

In this model, the enterprise has two legal entities, and legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently. Using this model, you would not typically need to report on tax reporting unit balances within a legal employer, and balances can be categorized by either or both organizations, as required. An example of a country that might use this model is the United Kingdom (UK).

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



## Legislative Data Groups: Explained

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

### Legislative Data Groups

Oracle Fusion Payroll is organized by legislative data groups. Each legislative data group marks a legislation in which payroll is processed, and is associated with a legislative code, currency and its own cost key flexfield structure. A legislative data group is a boundary that can share the same set up and still comply with the local laws. It can span many jurisdictions as long as they are within one country, and contain many legal entities that act as payroll statutory units. Each payroll statutory unit can belong to only one legislative data group.

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

When you set up legal entities, you can identify them as legal employers and payroll statutory units, which makes them available for use in Oracle Fusion Human Capital Management (HCM). A tax reporting unit is created

automatically when you add a legal entity and identify it as a payroll statutory unit. Depending on how your organization is structured, you may have only one legal entity that is also a payroll statutory unit and a legal employer, or you may have multiple legal entities, payroll statutory units, and legal employers.

### Legal Employers and Payroll Statutory Unit

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

### Payroll Statutory Units and Tax Reporting Units

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

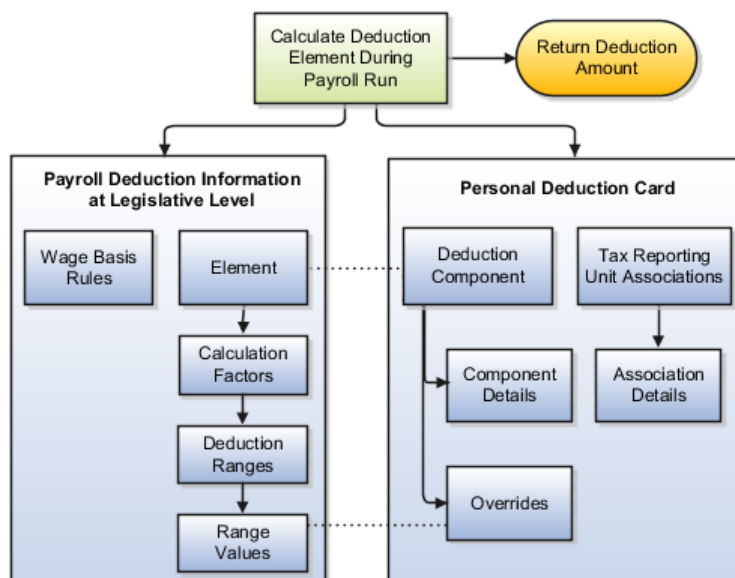
### Tax Reporting Units and Legal Employers

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

## Payroll Deductions, Elements, and Deduction Cards: How They Work Together

Payroll deductions comprise multiple components that are defined and managed at different levels. When a payroll run processes a payroll deduction element, it retrieves information stored at all applicable levels.

The following figure shows how deduction information at the legislative and personal levels feeds into the deduction calculation process.



## Element Processing

The deduction element's status processing rule drives the calculation, accessing rates and rules defined for the related payroll deduction and values captured on a personal deduction card.

Use the Manage Elements task in the Payroll Calculation work area to view the deduction elements. If an element is associated with a payroll deduction, the deduction name is displayed in the Deductions section on the Manage Element Summary page.

## Payroll Deduction

A payroll deduction comprises the rates and rules used to calculate the deduction amount.

- Wage basis rules define which classifications of earnings to consider when calculating the basis for the deduction element, based on criteria such as a worker's place of residence. The rule is defined at the legislative level, but the context value for the rule is captured on the deduction card.
- Calculation factors associated with the deduction element indicate which deduction range to use when calculating the deduction amount. For example, a calculation factor might identify which set of tax rates to use based on the employee's tax code, as specified on the deduction card. The calculated deductible amount would determine the specific rate to use from that range. A deduction range can also define a processing rule, such as a proration rule for calculating bankruptcy payments.

Use the Manage Deduction Group Rules task in the Payroll Calculation work area to view all wage basis rules, related elements, and calculation factors defined for a particular deduction group. Use the Manage Deduction Ranges task to view deduction ranges and range values.

## Personal Deduction Card

A personal deduction card contains person-specific information used to calculate the deduction amount.

- A deduction component on a deduction card typically relates to a deduction element defined at the legislative level. Adding a deduction component to a deduction card creates an entry for the related element.
- Component details, such as tax filing status or social insurance contribution category, are used as input values in the element calculation.
- Rates and rules defined on a personal deduction card override values defined in deduction ranges at the legislative level. For example, a default tax rate may be defined at the legislative level, but an employee qualifies for a special reduced rate, which you enter as an override on their personal deduction card.

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### Note

For some localizations, you can create deduction cards for a specific tax reporting unit (TRU) or payroll statutory unit (PSU) to capture information such as an employer's contribution rate.

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- Associations indicate which tax reporting unit is responsible for reporting the deductions. They define how deductions are aggregated and reported.

Use the Manage Personal Deductions task in the Payroll Administration or Payroll Calculation work area to create and edit personal deduction cards.

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**Note**

Each legislation supports a predefined set of deduction card types, which typically includes a statutory deduction card and an involuntary deduction card. Additional cards may be supported to capture information for reporting purposes.

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## Defining Deduction Cards at Different Levels: Examples

You can create and manage deduction cards at several different levels to capture information specific to a person or entity, such as an employee's tax filing status or an employer's tax identification number. You can also enter values on a deduction card that override default values defined at other levels. The priority of deduction information, from highest to lowest, is as follows:

1. Personal deduction card (payroll relationship level)
2. Tax reporting unit deduction card
3. Payroll statutory unit deduction card
4. Payroll deduction range values (legislative data group level)

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**Note**

The ability to create deduction cards at different levels and the allowable overrides at each level vary by legislation. The basic steps involved in creating and managing deduction cards is the same at all levels.

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Use these examples to understand when you might define deduction cards with overrides at each level.

### Personal Deduction Card

An employee qualifies for a special reduced tax rate. The payroll administrator enters the employee's reduced rate as an override on their personal deduction card, using the Manage Personal Deductions task in the Payroll Administration work area.

### Tax Reporting Unit Card

The income tax exemption amount is set to \$2000 at the legislative level, but a tax reporting unit in a particular state or province uses an exemption amount of \$2500. The payroll manager enters the exemption amount as an override on the tax reporting unit deduction card, using the Manage Legal Reporting Unit Deduction Records task in the Setup and Maintenance work area. This override value becomes the default exemption amount for the tax reporting unit, but can be overridden by an exemption amount defined on a personal deduction card.

### Payroll Statutory Unit Card

Calculation of the contribution base for pension insurance varies by legal employer. During application setup, the implementation team defines entity-specific contribution rates as overrides on the payroll statutory unit deduction

card, using the Manage Legal Entity Deduction Records task in the Setup and Maintenance work area. These override values become the default contribution rates for the payroll statutory unit, but can be overridden by values defined on a personal or tax reporting unit deduction card.

### **Payroll Deduction Range Values**

The application provides a set of predefined income tax rates for the country in which an employer conducts business. The payroll manager may use the Manage Deduction Ranges task in the Payroll Calculation work area to view this information, but the application prohibits users from modifying the predefined values. If, for example, an employer qualifies for a special tax rate, the payroll manager enters the appropriate values as overrides on a deduction card at the appropriate level.

## **FAQs for Define Legal Entities for Human Capital Management**

### **What's a legal employer?**

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

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

### **What's a legal address?**

A legal address is the mailing address of a legal entity or legal authority. You use legal addresses when you send correspondence such as invoices, bills, reports, and so on, to a legal entity or authority. A legal address is also the address a legal entity uses to register with a legal authority.

You must create legal addresses before creating legal entities. You create legal addresses for legal authorities at the same time as creating legal authorities.

### **What's a payroll statutory unit?**

Payroll statutory units are legal entities that are responsible for paying workers, including the payment of payroll tax and social insurance. A payroll statutory unit can pay and report on payroll tax and social insurance on behalf of one or many legal entities, depending on the structure of your enterprise. For example, if you are a multinational, multicompany enterprise, then you register a payroll statutory unit in each country where you employ and pay people. You can optionally register a consolidated payroll statutory unit to pay and report on workers across multiple legal employers within the same country. You associate a legislative data group with a payroll statutory unit to provide the correct payroll information for workers.

### **What's a tax reporting unit?**

Use a tax reporting unit to group workers for the purpose of tax and social insurance reporting. A tax reporting unit is the Oracle Fusion Human Capital Management (HCM) version of the legal reporting unit in Oracle Fusion Applications. To create a tax reporting unit, you use the Oracle Fusion Legal Entity Configurator to define a legal entity as a payroll statutory unit. When you



identify a legal entity as a payroll statutory unit, the application transfers the legal reporting units that are associated with that legal entity to Oracle Fusion HCM as tax reporting units. You can then access the tax reporting unit using the Manage TRU - HCM Information task.

If you identify a legal entity as a legal employer only, and not as a payroll statutory unit, you must enter a parent payroll statutory unit. The resulting legal reporting units are transferred to Oracle Fusion HCM as tax reporting units, but as children of the parent payroll statutory unit that you entered, and not the legal entity that you identified as a legal employer.

## Define Business Units for Human Capital Management

### Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy. In Oracle Fusion Applications, you assign your business units to one primary ledger. For example, if a business unit is processing payables invoices they will need to post to a particular ledger. This assignment is mandatory for your business units with business functions that produce financial transactions.

In Oracle Fusion Applications, use business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Anchors the sharing of sets of reference data across applications

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

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your ledger definition, because the uniqueness of sequencing is only ensured within a ledger. In these cases, define a single ledger and assign one legal entity and business unit.

In summary, use business units in the following ways:

- Management reporting
- Processing of transactions
- Security of transactional data

- Reference data definition and sharing

### Brief Overview of Business Unit Security

Business units are used by a number of Oracle Fusion Applications to implement data security. You assign data roles to your users to give them access to data in business units and permit them to perform specific functions on this data. When a business function is enabled for a business unit, the application can trigger the creation of data roles for this business unit based on the business function's related job roles.

For example, if a payables invoicing business function is enabled, then it is clear that there are employees in this business unit that perform the function of payables invoicing, and need access to the payables invoicing functionality. Therefore, based on the correspondence between the business function and the job roles, appropriate data roles are generated automatically. Use Human Capital Management (HCM) security profiles to administer security for employees in business units.

## Assigning Reference Data Sets to Reference Objects: Points to Consider

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

### Determinant Types

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

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

### Determinant

The determinant or determinant value is the value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the

appropriate reference data set. For example, when managing set assignments for the set determinant type, Reference Data Set is the determinant type, and you would enter the corresponding set code value as the corresponding determinant value.

### Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data) that are treated in the same manner because of commonness in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups, based on the functional area and the partitioning requirements that they have in common. For example, all tables and views that define Sales Order Type details might be part of the same reference group.

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#### Note

The reference groups are predefined in the reference groups table and are available for selection and assignment.

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## Define Chart of Accounts and Accounting Configurations

### Payroll and Financials Setup: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Financials. You create components as part of your implementation such as chart of accounts, ledgers, and accounting calendars, which you use when creating payroll definitions and when distributing accounting for payroll costs.

Complete the following setup tasks in the Setup and Maintenance area for the chart of accounts and ledgers. If you integrate Global Payroll and Financials in a single system, assign an application implementation consultant role or appropriate duty role to a Financials or payroll manager.

#### Chart of Account Setup Tasks

Complete the following tasks to set up your chart of accounts information. Later, you associate the chart of accounts to a ledger.

Task	Action
Manage Chart of Accounts Value Sets	Create new or review existing value sets for association with a key flexfield segment.
Manage Chart of Accounts Structures	Create account structures that specify the segments to include, their order, and the value sets to validate the data entered in the segments.  The key flexfield, Accounting Flexfield, is predefined for you in Oracle Fusion General Ledger.
Manage Chart of Accounts Structure Instances	Create account structure instances used to record transactions and maintain account balances.
Manage Chart of Accounts Value Set Values	Create groups of values assigned to a key flexfield segment.

Manage Account Hierarchies	Search, create, and edit hierarchical groupings of accounts.
Manage Accounting Calendars	Set up accounting calendar period details. Determine the total number, frequency, and duration of the accounting periods.
Manage Account Combinations	<p>If you do not select the option for your chart of accounts structure instance to allow account combinations to be dynamically created, you create account combinations. You create accounts for each account combination used in payroll, for example, for your payroll liability, cash, cash clearing, default, and suspense accounts. As a best practice, use the same account numbers in payroll and General Ledger.</p> <p>If you reconcile payments in Oracle Fusion Cash Management, create an account combination for reconciliation differences.</p>

### Ledger Setup Tasks

You perform the following tasks as part of the accounting configuration setup for payroll.

Task	Action
Manage Primary Ledgers	<p>Create a ledger with a chart of accounts, accounting calendar, currency and subledger accounting method.</p> <p>If you are creating bank information, you must create a primary ledger.</p>
Assign Legal Entities	<p>Add the legal entities that use the ledger.</p> <p>When you create a payroll definition, you select a legislative data group. The list of available ledgers includes only ledgers assigned to legal entities associated with the legislative data group. (The Manage Legal Entity HCM Information task associates the payroll statutory units for legal entities to the legislative data group.)</p>
Specify Ledger Options	Complete the fields for the General Information, Accounting Calendar, and Subledger Accounting sections. In the Period Close section, select the Retained Earnings Account you will use for payroll. In the Journal Processing Intercompany subsection, select the option to launch AutoReverse after the open period.
Assign Balancing Segment Values to Legal Entities	Assign specific balancing segment values to each legal entity before assigning values to the ledgers. By specifying this information, you can more easily identify legal entities during transaction processing and reporting
Assign Balancing Segment Values to Ledger	Optionally, assign specific primary balancing segment values to the primary and secondary ledgers to represent transactions for nonlegal entities, such as adjustments.

Manage Reporting Currencies	Review and update reporting currencies. Reporting currencies maintain and record subledger and general ledger journal entries in additional currencies.
Review and Submit Accounting Configuration	Submit your configuration.
Open First Period	Open the first period when you are ready to process transactions for the ledger.  the Open First Period Task is used initially to open the first period. Afterwards, you use the Manage Accounting Periods in General Ledger to open and close periods, and to specify the target period that concludes the series of calendar periods.

## Define Workforce Structures: Define Organization Structures

### Designing an Enterprise Configuration: Example

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

#### Scenario

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

#### Enterprise Details

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

#### Analysis

InFusion requires three divisions. The US division will cover the US locations. The Europe division will cover the UK and France. Saudi Arabia and the UAE will be covered by the Middle East division.

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

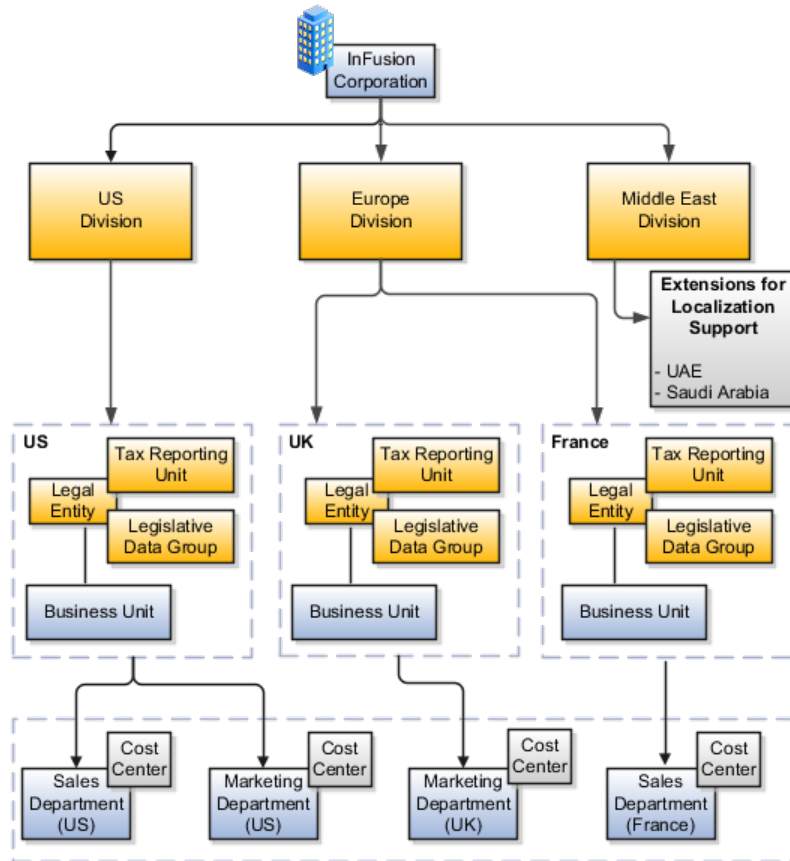
InFusion requires a number of departments across the enterprise for each area of business, such as sales and marketing, and a number of cost centers to track and report on the costs of those departments.

InFusion requires business units for human capital management (HCM) purposes. InFusion has general managers responsible for business units within each country. Those business units may share reference data. Some reference

data can be defined within a reference data set that multiple business units may subscribe to. Business units are also required for financial purposes. Financial transactions are always processed within a business unit.

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

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



## Using Single or Multiple Classifications for an Organization: Points to Consider

Organization classifications define the purpose of the organization, whether it's a department, a division, or a legal entity. In some enterprises, organization classifications overlap, which means that the same organization can be assigned multiple classifications. For example, one organization within an enterprise might be both a project organization and a department. The classifications of organizations vary according to business objectives, legal structure, industry, company culture, size and type of growth. You can create organizations in Oracle Fusion with one or more classifications to reflect your enterprise structure.

## **Defining an Organization with One Classification**

Define each organization in your enterprise as a separate organization with a single classification to reflect your enterprise structure and provide flexibility for growth and expansion. The advantage of setting up separate organizations is the ability to add further organizations to expand the enterprise easily. For example, if your enterprise acquires another company which has a different line of business in a country in which you employ people, then you can create a division to represent the new company, a legal entity (classified as a legal employer and payroll statutory unit) for the company's payroll tax and social insurance, and any additional departments for workers.

## **Defining an Organization with Multiple Classifications**

Define an organization with multiple classifications if the organization has multiple purposes. For example, if you want to use an organization within the Oracle Fusion Customer Relationship Management applications as a department that employs sales people, you can classify it as a department and a sales organization. Or, if your enterprise operates and employs people in multiple countries, you can create a legal entity for each country using the Oracle Fusion Legal Entity Configurator and then use the Manage Departments task to classify them as a department as well.

## **Disability Organizations: Explained**

Set up disability organizations to identify the external organizations with which workers with disabilities are registered. Disability organizations provide information and support to people with disabilities. The Royal National Institute of Blind People is an example of a disability organization. Disability organizations can also assess the degree to which a person is affected by the disability.

### **Disability Organizations and Person Records**

When you create person records for workers with disabilities, you select the disability organization with which the worker is registered, identify the registration and expiration dates, and enter any other descriptive or legislative information that pertains to the disability.

## **Cost Centers and Departments: Explained**

A cost center represents the smallest segment of an organization for which costs are collected and reported. A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager and has one or more workers assigned to it.

The following two components need to be considered in designing your enterprise structure:

- Cost centers

- Departments

## Cost Centers

A cost center also represents the destination or function of an expense as opposed to the nature of the expense which is represented by the natural account. For example, a sales cost center indicates that the expense goes to the sales department.

A cost center is generally attached to a single legal entity. To identify the cost centers within a chart of accounts structure use one of these two methods:

- Assign a cost center value in the value set for each cost center. For example, assign cost center values of PL04 and G3J1 to your manufacturing teams in the US and India. These unique cost center values allow easy aggregation of cost centers in hierarchies (trees) even if the cost centers are in different ledgers. However, this approach will require defining more cost center values.
- Assign a balancing segment value with a standardized cost center value to create a combination of segment values to represent the cost center. For example, assign the balancing segment values of 001 and 013 with cost center PL04 to represent your manufacturing teams in the US and India. This creates 001-PL04 and 013-PL04 as the cost center reporting values.

The cost center value of PL04 has a consistent meaning. This method requires fewer cost center values to be defined. However, it prevents construction of cost center hierarchies using trees where only cost center values are used to report results for a single legal entity. You must specify a balancing segment value in combination with the cost center values to report on a single legal entity.

## Departments

A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager. For example, although the manager may change, the objectives do not change. Departments have one or more workers assigned to them.

A manager of a department is typically responsible for:

- Controlling costs within their budget
- Tracking assets used by their department
- Managing employees, their assignments, and compensation

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### Note

The manager of a sales department may also be responsible for meeting the revenue targets.

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The financial performance of departments is generally tracked through one or more cost centers. In Oracle Fusion Applications, departments are defined



and classified as Department organizations. Oracle Fusion Human Capital Management (HCM) assigns workers to departments, and tracks the headcount at the departmental level.

The granularity of cost centers and their relationship to departments varies across implementations. Cost center and department configuration may be unrelated, identical, or consist of many cost centers tracking the costs of one department.

## Department Classifications: Points to Consider

A department can be classified as a project organization, sales and marketing organization, or cost organization.

Oracle Fusion Human Capital Management (HCM) uses trees to model organization hierarchies. It provides seeded tree structures for department and other organizational hierarchies that can include organizations with any classification.

### Project Organization

Classify departments as a project owning organization to enable associating them with projects or tasks. The project association is one of the key drivers for project access security.

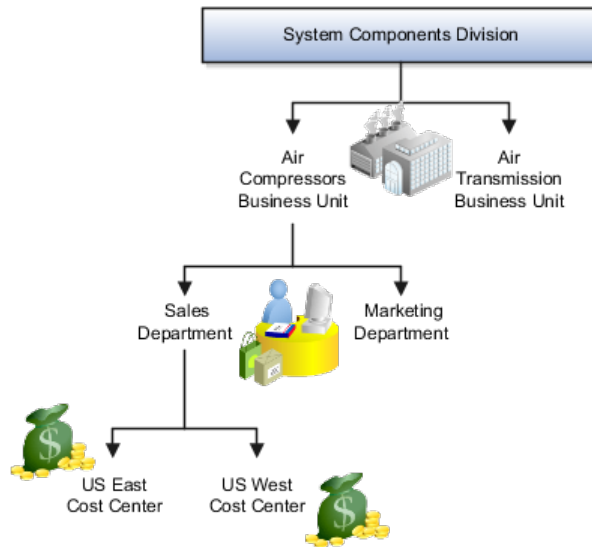
In addition, you must classify departments as project expenditure organizations to enable associating them to project expenditure items. Both project owning organizations and project expenditure organizations can be used by Oracle Fusion Subledger Accounting to derive accounts for posting Oracle Fusion Projects accounting entries to Oracle Fusion General Ledger.

### Sales and Marketing Organization

In Oracle Fusion Customer Relationship Management (CRM), you can define sales and marketing organizations. Sales organization hierarchies are used to report and forecast sales results. Sales people are defined as resources assigned to these organizations.

In some enterprises, the HCM departments and hierarchies correspond to sales organizations and hierarchies. It is important to examine the decision on how to model sales hierarchies in relationship to department hierarchies when implementing customer relationship management to eliminate any possible redundancy in the definition of the organizations.

The following figure illustrates a management hierarchy, in which the System Components Division tracks its expenses in two cost centers, Air Compressors and Air Transmission. At the department level, two organizations with a classifications of Department are defined, the Marketing Department and Sales Department. These two departments can be also identified as a Resource Organizations, which will allow assigning resources, such as sales people, and other CRM specific information to them. Each department is represented in the chart of accounts by more than one cost center, allowing for granular as well as hierarchical reporting.



## Cost Organization

Oracle Fusion Costing uses a cost organization to represent a single physical inventory facility or group of inventory storage centers, for example, inventory organizations. This cost organization can roll up to a manager with responsibility for the cost center in the financial reports.

A cost organization can represent a costing department. Consider this relationship when determining the setup of departments in HCM. There are no system dependencies requiring these two entities, cost organization and costing department, be set up in the same way.

## Locations: Explained

A location identifies physical addresses of a workforce structure, such as a department or a job. You can also create locations to enter the addresses of external organizations that you want to maintain, such as employment agencies, tax authorities, and insurance or benefits carriers.

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

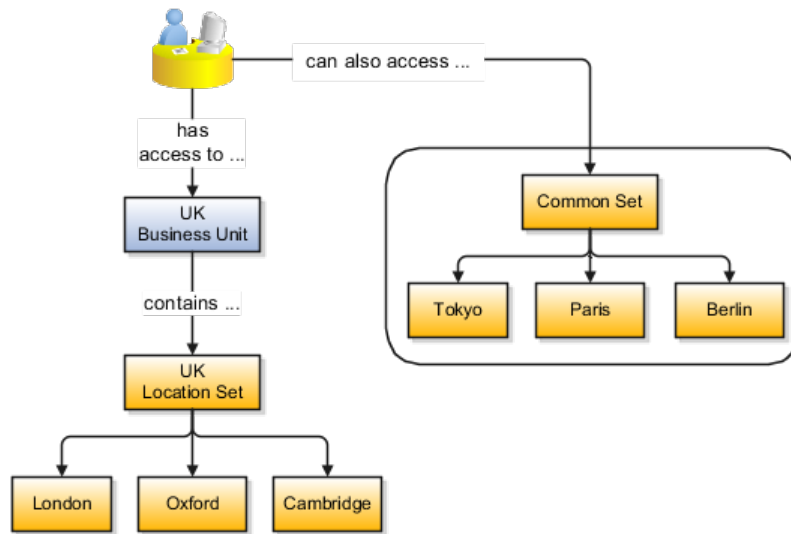
### Location Sets

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

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

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

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



### Creating Multiple Locations Simultaneously

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

## Action Components: How They Work Together

Actions track changes to Human Capital Management (HCM) records, for example, changes to employment and assignment records. When you create or update these records, the action identifies the cause of the creation or change.

### Action

You can view a history of effective-dated changes (assignment history, for example), and the action and reason details are particularly useful. You sometimes use actions to categorize the type of change. Each predefined termination action is associated with a termination type (either voluntary or involuntary) to help categorize the termination. For example, the termination actions Death and Reduction in Force are categorized as voluntary and involuntary respectively. In certain cases, actions determine the business flow. For example, you can select from a list of employment-related actions, such as Assignment Change, Transfer, or Termination. The action you select determines the path you take through the current business flow. If you want to use your own action names to track changes, you can create new actions and associate them with the appropriate action types.

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### Note

If you are creating your own termination-related action, it is highly recommended that you specify the termination type for the action, whether it is voluntary or involuntary. This information is useful for analysis and reporting purposes.

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### **Action Reason**

You can optionally associate reasons with actions, for example, a generic action of termination could have reasons such as voluntary retirement or involuntary layoff. The primary reason for doing this is for analysis and reporting purposes. You can view the action and reason details in the Employee Termination Report. Line managers can view predictions about who is likely to leave voluntarily, which are based on existing and historical terminations data. The process that generates the predictions uses the action and reason data to identify whether a termination is voluntary or involuntary. When managers allocate compensation to their workers, they can select from a list of action reasons that help identify the type of or reason for the compensation allocation.

### **Action Type**

Action type identifies the type of business process associated with the action and determines what happens when you select an action. An action type is associated with one or more predefined actions. You can create your own actions and associate them with the predefined action types. For example, the Hire an Employee action type is associated with the Hire action. You could create an action Hire Part-Time and associate it with the Hire an Employee action type. Your action appears in the Action list of values on the Hire an Employee page. To hire a part-time employee, you could select the Hire Part-Time action instead of the predefined Hire action.

## **The Three-Tier Employment Model: Explained**

The three-tier employment model comprises three types of entities, which are work relationships, employment terms, and assignments. Users can include contract details in employment terms.

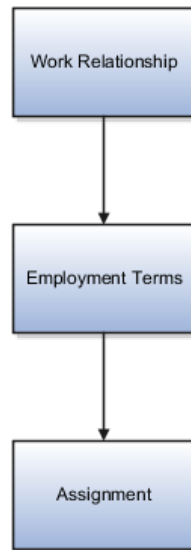
When you configure the employment model for the enterprise or legal employer (when you create or update the enterprise or legal employer), the following three-tier options are available:

- Single Employment Terms with Single Assignment
- Single Employment Terms with Multiple Assignments
- Multiple Employment Terms with Single Assignment
- Multiple Employment Terms with Multiple Assignments

### **Single Employment Terms with Single Assignment**

Each work relationship contains one set of employment terms, and each set of employment terms contains one assignment.

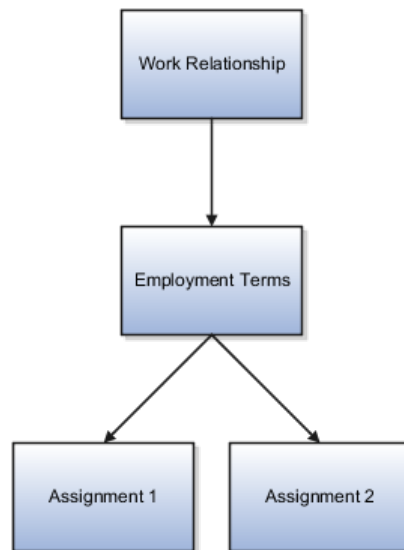
Both the employment terms and the assignment are created automatically.



### Single Employment Terms with Multiple Assignments

Each work relationship contains one set of employment terms, and the employment terms can contain one or more assignments.

The employment terms and one assignment are created automatically when the work relationship is created; additional assignments are created manually. Additional assignments can belong to the employment terms or exist outside them.

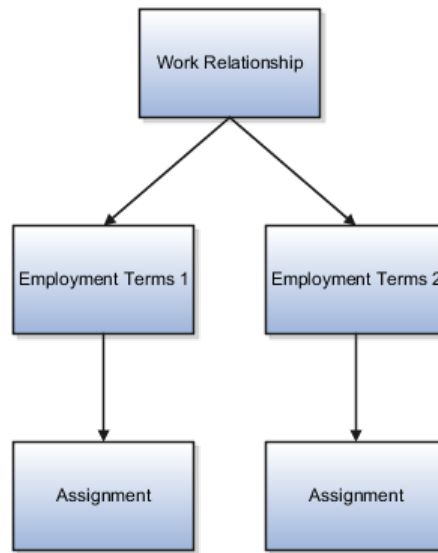


### Multiple Employment Terms with Single Assignment

Each work relationship can contain one or more sets of employment terms, and each set of employment terms can contain a single assignment.

One set of employment terms and the associated assignment are created automatically when the work relationship is created; additional employment

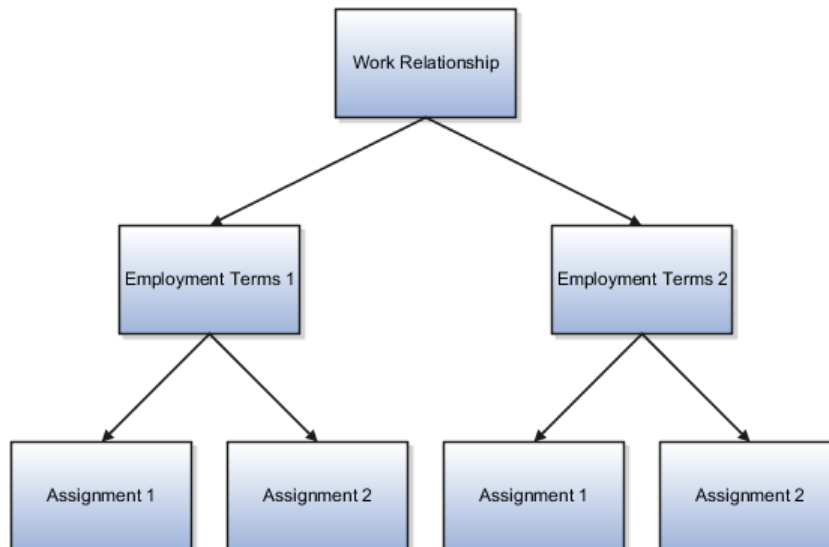
terms and assignments are created manually. Additional assignments can belong to employment terms or exist outside them.



### Multiple Employment Terms with Multiple Assignments

Each work relationship can contain one or more sets of employment terms, and each set of employment terms can contain one or more assignments.

One set of employment terms and an associated assignment are created automatically when the work relationship is created; additional employment terms and assignments are created manually. Additional assignments can belong to employment terms or exist outside them.



## The Two-Tier Employment Model: Explained

The two-tier employment model comprises two types of entities, which are work relationships and assignments. Employment terms occur in the three-tier employment model only.

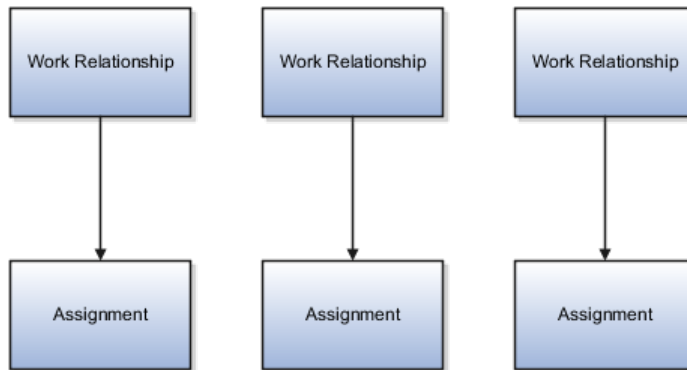
When you configure the employment model for the enterprise or legal employer (when you create or update the enterprise or legal employer), you can select from three two-tier options:

- Single Assignment
- Single Assignment with Contract
- Multiple Assignments

### Single Assignment

If you select Single Assignment, each work relationship of any type has one assignment only.

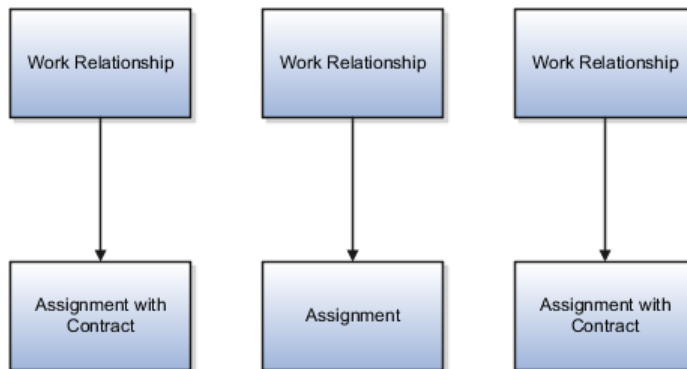
The assignment is created automatically when the work relationship is created.



### Single Assignment with Contract

If you select Single Assignment with Contract, users can include contract information in the single assignment. This approach enables those legislations that require contract information in employment records to meet their obligations without having to use a three-tier employment model.

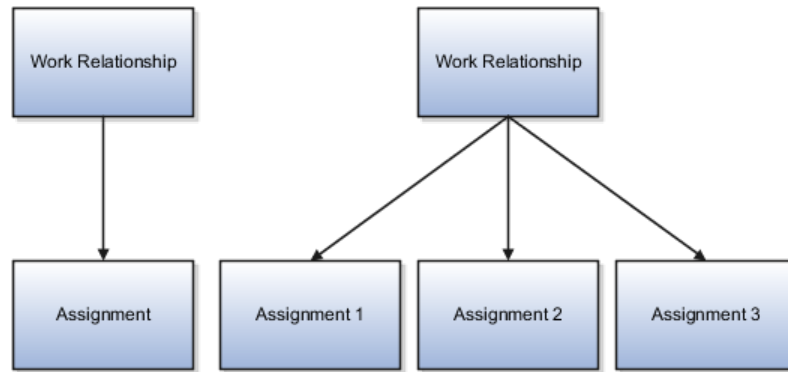
The assignment is created automatically when the work relationship is created. Including contract information in the assignment is optional.



### Multiple Assignments

If you select Multiple Assignments, each work relationship of any type can include one or more assignments.

One assignment is created automatically when the work relationship is created. Additional assignments are optional and are created manually.



## Selecting the Employment Model: Critical Choices

By default, every enterprise uses the two-tier single-assignment employment model. You can select a different employment model for the enterprise or for individual legal employers. This topic discusses the choices you can make and identifies any restrictions.

### Using the Two-Tier Employment Model

If you select any of the two-tier employment models at the enterprise level:

- You can select a different employment model for individual legal employers.
- Employment terms cannot be used in any work relationship in the enterprise, unless you select a three-tier employment model for individual legal employers.

If you select:

- Single Assignment or Single Assignment with Contract, all work relationships in the enterprise or legal employer are restricted to a single assignment.
- Multiple Assignments, all work relationships in the enterprise or legal employer can include one or more assignments; therefore, work relationships can include a single assignment when appropriate.

### Using the Three-Tier Employment Model

If you select any of the three-tier employment models at the enterprise level, you can select a different employment model for individual legal employers.

In legal employers where employment terms are used, employee and nonworker work relationships have at least one set of employment terms. Additional sets of employment terms, where supported, are optional.

Note that employment terms are not valid for contingent workers. If you select Single Employment Terms with Single Assignment, contingent workers have a single assignment in each work relationship; otherwise, contingent workers can have multiple assignments in each work relationship.

If you select a three-tier employment model that supports:



- A single assignment in a set of employment terms, then users cannot create multiple assignments in a set of employment terms
- Multiple assignments in a set of employment terms, then users can create one or more assignments in a set of employment terms; therefore, employment terms can include a single assignment when appropriate
- A single set of employment terms in a work relationship, then users cannot create multiple sets of employment terms in a work relationship
- Multiple sets of employment terms in a work relationship, then users can create one or more sets of employment terms in a work relationship; therefore, work relationships can include a single set of employment terms when appropriate

### Changing the Employment Model for the Enterprise or Legal Employer

In general, you can change the employment model for the enterprise or legal employer both during initial implementation and later. However, there are some restrictions on switching to and from particular employment models.

The following table identifies whether you can switch from one two-tier employment model to a different two-tier employment model.

From	To Single Assignment	To Single Assignment with Contract	To Multiple Assignments
Single Assignment	N/A	See note	Yes
Single Assignment with Contract	See note	N/A	Yes
Multiple Assignments	See note	Yes	N/A

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#### Note

Yes, provided that no work relationships exist in the enterprise or legal employer.

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You can switch from a two-tier employment model to a three-tier employment model only if no work relationships exist in the enterprise or legal employer.

You can switch from a three-tier employment model to a two-tier employment model only if no work relationships exist in the enterprise or legal employer.

You can switch from one three-tier employment model to any other three-tier employment model at any time.

## Employment Terms Override: Explained

If you use the three-tier employment model, assignments inherit most attribute values from the associated employment terms. For example, if you set the assignment category to full-time in the employment terms, then all assignments associated with those employment terms are full-time by default. For the enterprise or legal employer, you specify whether attribute values inherited from employment terms can be overridden at the assignment level.

### **Preventing Override at the Assignment Level**

If you prevent override at the assignment level, then users cannot update assignment attribute values inherited from employment terms. This approach is recommended if you want to enforce particular assignment attribute values.

The restriction applies only to attribute values that users specify on the employment terms, and they can specify as many or as few attributes as required at that level. Any value that users omit from the employment terms can be updated without restriction at the assignment level.

### **Allowing Override at the Assignment Level**

If you allow override at the assignment level, then users can update assignment attribute values inherited from employment terms. Using employment terms in this way can be efficient, particularly if workers in your enterprise have multiple assignments in a single set of employment terms: users enter attribute values once only in the employment terms, but can update individual attributes as necessary at the assignment level.

### **Deferring the Decision to the Employment Terms**

If you have no compelling reason either to allow or to prevent override at the assignment level, you can defer the decision to each set of employment terms. That is, whenever a user creates a set of employment terms, that user can decide whether to allow or prevent override at the assignment level.

## **Work Day Information: Explained**

Work day information defines the standard working hours for each worker assignment in the enterprise or legal employer.

### **Sources of Work Day Information**

If a schedule has been assigned to the enterprise, legal employer, or department, work day information is taken automatically from that schedule. Otherwise, you can enter work day information for the enterprise, legal employer, and department.

Work day information can also be defined for positions. In any assignment, standard working hours are inherited from one of the following entities in this order of preference:

1. Position
2. Department
3. Legal employer
4. Enterprise

### **How Work Day Information Is Used**

For assignment budgeting purposes, FTE is calculated automatically by dividing the assignment working hours by the standard working hours, which the assignment inherits from the position, department, legal employer, or enterprise. If standard working hours are not available for any of these entities, then FTE cannot be calculated. Although FTE can also be entered manually, automatic

calculation of FTE is efficient for FTE reporting and promotes consistency among the various uses of FTE information.

## Using Worker Numbers: Points to Consider

Every person record in the enterprise has a person number. In addition, you can allocate worker numbers to employee and contingent worker work relationships. Worker numbers are optional: they are provided primarily for Oracle E-Business Suite customers who have used employee and contingent worker numbers and want to continue using them.

### Enabling Worker Numbers for the Enterprise

By default, worker numbers are not used. If you enable worker numbers for the enterprise, then each employee and contingent worker work relationship in the enterprise must have a worker number. If you do not enable worker numbers for the enterprise, they cannot be used. The decision that you make for the enterprise cannot be overridden at the legal employer level.

### Selecting the Number-Generation Method

Worker numbers can be generated either manually or automatically.

If you select manual generation, then you are recommended to define a numbering scheme to suit local requirements. For example, determine whether uniqueness within the enterprise or at the legal employer level is important, and define the numbering scheme accordingly.

If you select automatic worker-number generation, numbers can be allocated from either an enterprise sequence or a legal employer sequence. If you use a legal-employer sequence, worker numbers are not guaranteed to be unique in the enterprise. Also, they cannot be transferred outside the legal employer: if a worker leaves the enterprise and later starts a new work relationship of the same type but with a different legal employer, a new worker number is allocated to the work relationship.

### Setting the Number-Generation Method for a Legal Employer

All legal employers automatically inherit the enterprise number-generation method. You can override the number-generation method at the legal employer level, as follows:

- You can select manual worker-number generation for a legal employer at any time.
- You can select automatic worker-number generation for a legal employer, provided that no employee or contingent worker work relationships exist for that legal employer.

## Person Number Generation Methods: Explained

You can select one of the following person number generation methods for your enterprise:

- Manual
- Automatic prior to submission

- Automatic upon final save

The manual method of creating person numbers enables human resource (HR) specialists and line managers to enter a person number when they create person records. HR specialists can later correct the person numbers on the Manage Person page.

The automatic methods of generating person numbers use an enterprise number sequence that starts from 1 by default; however, the initial number can be changed. The person number increments by one for each new person record created.

The Automatic prior to submission method creates and displays person numbers when users navigate from the Identification page to the Person Information page, when adding person records. However, this method may create gaps in the sequence of person numbers if the transaction is canceled after the person number is generated. The Automatic prior to submission method is the default method of person number generation.

The Automatic upon final save method creates person numbers only after the Add Person transaction is approved. Users will not be able to see the person number on the Person Information page when adding person records; however, they will see the person number on the Manage Person page and elsewhere after the transaction is approved. This method enables generation of person numbers without gaps in the sequence.

You can change the person number generation method from automatic prior to submission to automatic upon final save and vice versa, any time. You can also change the method to manual any time. However, once you have set the person number generation method to manual and person records have been created, you cannot change the method to automatic.

### **Initial Person Number**

You can specify the initial person number for your enterprise when person numbers are generated automatically. The application uses this number for the first person record created with the automatic person number setting and increments the person number by one for subsequent person records. The initial person number is 1 by default.

The initial person number option enables you to retain the legacy person numbers for the existing persons and automate the number generation for new persons, starting from the last legacy person number plus one. You can change the initial person number at any time.

### **Person Numbers for Contact Records**

Person numbers for contacts are generated automatically through the Automatic prior to submission method, irrespective of the enterprise settings. HR specialists can correct the automatically generated person numbers for contacts on the Manage Person page. If contacts are later hired as workers, they retain their original person numbers.

## **User and Role-Provisioning Setup: Critical Choices**

The user and role-provisioning attributes control whether users are given access to Oracle Fusion Applications, when they gain access, how user accounts are created and maintained, and who is notified when a user account is created.

These attributes are likely to be of interest if:

- Some workers in the enterprise will never need to access Oracle Fusion Applications.
- You want to delay user access until a specified stage in your implementation.
- Your existing provisioning infrastructure creates user accounts, and you plan to integrate it with Oracle Fusion Human Capital Management (HCM).

This topic describes the user and role-provisioning attributes that you can specify for the enterprise when you perform the task Manage Enterprise HCM Information. You can edit these values as often as needed and specify when new values take effect.

### User Account Creation

By default, user accounts are created automatically in Oracle Identity Management (OIM) when you create a new person record, regardless of how you create the person record. You can prevent the automatic creation of user accounts in OIM by setting **User Account Creation** to **No**.

If you set **User Account Creation** to **No**, then no user accounts are created for the enterprise. If you need to create OIM user accounts for individual users, then you can do so using the Manage Users task. Alternatively, you can use a provisioning infrastructure other than OIM to create and manage user accounts. If you choose this approach, then you are responsible for enabling and managing the interface with Oracle Fusion HCM, including the management of any user-account-related updates.

### User Account Role Provisioning

Once a user account exists, roles are provisioned automatically to users, or removed from them, in accordance with current role-provisioning rules. You can prevent this automatic role management by setting **User Account Role Provisioning** to **No**. In this case, role requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM. If you are managing role provisioning outside Oracle Fusion HCM, you may want to search for suppressed role requests in the LDAP requests table.

### User Account Maintenance

By default, some person information is sent automatically from Oracle Fusion HCM to OIM both when a person record is created in HCM and when you update it subsequently. Information sent to OIM includes person name, work e-mail address, work location address, system person type from the primary assignment, and manager details. To prevent this data from being sent to OIM (for example, if you want to maintain user accounts in some other way), set **User Account Maintenance** to **No**.

### Alternate Contact E-Mail Address

The alternate contact e-mail address is an enterprise-wide e-mail address to which user names and passwords are sent. This address is used only if you also set **User Account Creation** and **Send User Name and Password** to **Yes**.

## Send User Name and Password

If both **User Account Creation** and **Send User Name and Password** are set to **Yes**, then user names and passwords for new OIM user accounts are sent automatically to the alternate contact e-mail address, if any, that you specify for the enterprise.

If you specify no alternate contact e-mail address, then the user name and password for a user are sent to:

- The user's primary work e-mail address, if available
- The primary work e-mail address of the user's line manager, if the user has no primary work e-mail address

If primary work e-mail addresses are not available for either the user or the user's line manager, then no notification is sent for that user.

If you set **Send User Name and Password** to **No**, then no e-mail notifications are sent to the alternate contact e-mail address, the user, or the user's line manager. You can:

- Override the enterprise setting of this option for individual users on the Create User page.

In this case, notification e-mails are sent to the user or the user's line manager; they are not sent to the alternate contact e-mail address.

- Notify users of their user names and passwords later by running the process Send User Name and Password E-Mail Notifications. This process issues e-mail notifications for users for whom such notifications have not yet been sent. The e-mail notifications are sent to users or their line managers; they are not sent to the alternate contact e-mail address.

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### Note

The OIM Reset Password notification template must include the user ID field if you plan to run the process Send User Name and Password E-Mail Notifications. For more information about OIM notification templates, see the section Modifying a Notification Template in the Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager.

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## FAQs for Define Organization Structures

### What's a reporting establishment?

A reporting establishment is an organization that is used for statutory reporting other than tax and social insurance reporting. A reporting establishment has a parent-child relationship with a legal employer, with the legal employer being the parent organization. A legal employer can be the parent of multiple reporting establishments.

In some countries, such as France, a reporting establishment can also be a tax reporting unit.

### **What's the difference between a job set and a job family?**

A job family is a group of jobs that have different but related functions, qualifications, and titles. They are beneficial for reporting. You can define competencies for job families by associating them with model profiles.

A job set is an organizational partition of jobs. For example, a job set can be global and include jobs for use in all business units, or it can be restricted to jobs for a specific country or line of business. When you select a job, for a position or an assignment, the available jobs are those in the set associated with the business unit in which you are working, and also those in the Common set.

### **What's the purpose of the legislative action attributes?**

The legislative attributes apply to the transfer and termination actions. You can indicate whether an action is transfer-related. You can specify the termination type for termination-related actions. For example, the termination-related action Resignation can have the termination type as voluntary and the action Reduction in Force can have the termination type as involuntary. You may enter this information typically to meet specific legislative requirements or for reporting purposes.

### **Can I delete an action or action reason?**

No. If you no longer want users to select an action or action reason you can enter an end date, beyond which the action or reason will be unavailable.

### **Can I create additional action types?**

No. Action types are predefined and can contain one or more actions. You may associate your actions with the predefined action types but not create your own action types.

### **Can I delete an organization?**

No. However, you can disable an organization if it is no longer required. For example, if the enterprise is downsizing, then you can set the status of the organization to inactive. Changing the status of the organization disables the organization and the organization is no longer available to select.

### **How can I identify my organization in a report?**

Use the organization manager information to enter a reporting name to help you identify an organization in a report. You use organization hierarchies for statutory, legal and management reporting.

### **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.

### **How can I associate a location with an inventory organization?**

From the Manage Locations page in Oracle Fusion Global Human Resources.

To appear on the Create or Edit Location pages, your inventory organization must be effective on today's date and must exist in the location set that you selected.

### **What happens if I select an inventory organization when I'm creating or editing a location?**

The location is available for selection in purchase documents of that inventory organization in Oracle Fusion Inventory Management. If you don't select an inventory organization, then the location is available in purchase documents across all inventory organizations.

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

The calendar events that were created for the geographical node start to apply for the location and may impact the availability of worker assignments at that location. The geographical hierarchy nodes available for selection on the Locations page display from a predefined geographic hierarchy.

### **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.

### **How can I change the web mapping service for displaying contextual addresses?**

Edit the Mapping Service for Contextual Addresses profile option value. A contextual address is marked with an orange square icon that can be clicked to display the address on a map. The profile option value represents the web mapping service used to display the map. To update this value, use the Manage Administrator Profile Values task in the Setup and Maintenance work area.

## **Define Workforce Structures: Define Grades**

### **Grades: Explained**

Create grades to record the level of compensation for workers. You can create grades for multiple pay components, such as salary, bonus, and overtime rates. You can define one or more grades that are applicable for jobs and positions. This list of valid grades, combined with the settings for two profile options, enables you to restrict the grades that can be selected when you set up assignments or employment terms for a worker.



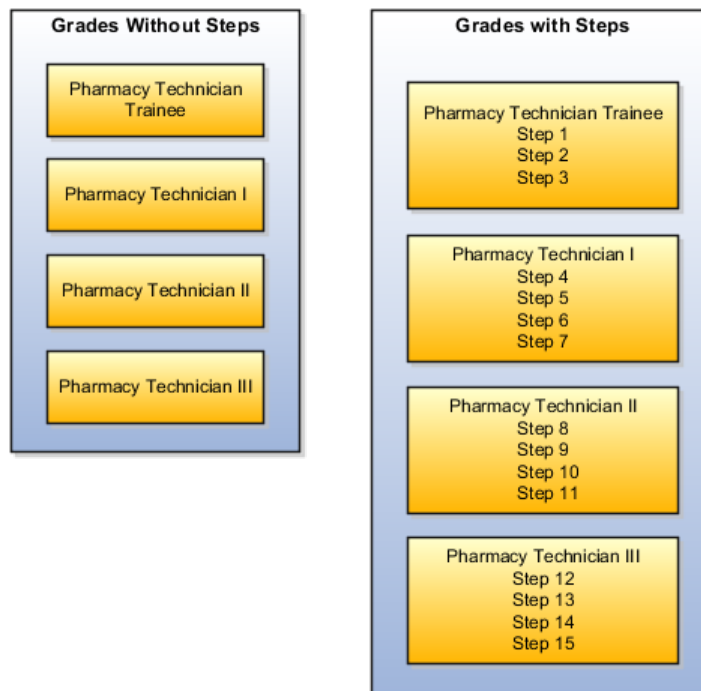
## Grades and Sets

You assign each grade to a set. If you assign a grade to the common set, then the grade is available for use in all business units. To limit a grade to a single business unit, you can assign it to a set that is specific to that business unit.

## Grade Steps

Grade steps are distinct increments of progression within a grade. You can set up grades with or without grade steps.

The following figure illustrates the difference between grades with and without steps.



## Grade Rates

Grade rate values are the compensation amounts associated with each grade. You can set up rates at the same time that you create grades, or set them up independently from grades. For grades with steps, you set up the step rates when you include them in a grade ladder. Grade rates are optional.

## Grade Ladders

You can combine grades into grade ladders to group your grades or grades with steps in the sequence in which your workers typically progress. For example, you might create three grade ladders for your enterprise: one for technical grades, another for management grades, and a third for administrative grades.

## Lookup Types for Grades: Explained

This topic identifies the lookup type for managing grades that has an extensible customization level. Review these lookup values, and update them as appropriate to suit enterprise requirements.

## Lookup Type for Grades

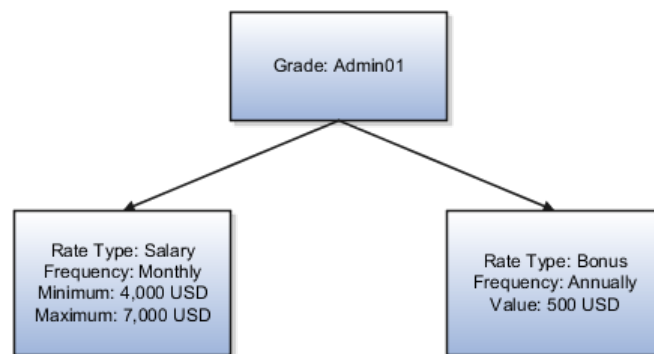
The GRADE\_PAY\_RATE\_TYPE lookup type identifies the compensation components for which you want to set up grade rates. The predefined values are salary, bonus, and overtime.

## Grade Rates: Explained

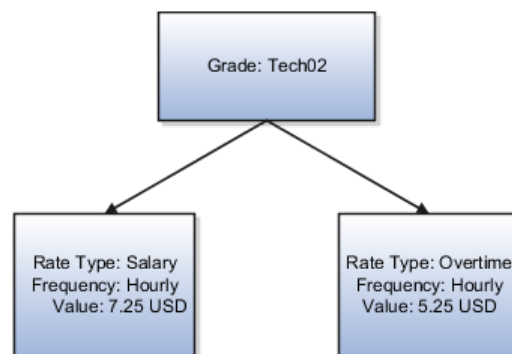
Grade rates contain the pay values that are related to each grade. Grade rate values can be either a fixed amount or a range of values, and you can set up rates for different types of pay, such as salary, overtime, and bonuses.

Grade rates for some jobs or positions might include an hourly salary rate and an overtime rate. Grade rates for other jobs or positions might contain a salary rate type with a range of amounts and a bonus rate type with a fixed amount. Grade rates typically serve only as a guideline to validate that the salary you propose during the compensation process for a worker on a certain grade is appropriate for that grade.

This figure illustrates a grade that has two rate types associated with it. One is a salary rate type that has a range of values, and the other is a bonus rate type with a fixed amount.



This figure illustrates a different grade that has two rate types associated with it. One is a salary rate type that has a fixed amount, and the other is an overtime rate type that also has a fixed amount.



## Rate Types

The types of rates that you can set up depend on the values for lookup type GRADE\_PAY\_RATE\_TYPE. Examples of rate types are: salary, bonus, and overtime pay.

## **Grade Rates and Legislative Data Groups**

You assign a legislative data group to each grade rate. Depending on how your enterprise is configured, you may have several legislative data groups. You can set up grades that are shared across different areas of your business, and then enter rates that are specific to each legislative data group.

## **Grade Rates and Grades**

You can set up grade rates when you set up grades, or you can set them up independently from grades. For grades with steps, you enter rates when you attach the grades to a grade ladder.

# **Grade Ladders: Explained**

Create grade ladders to group grades and grades with steps in the sequence in which your workers typically progress. Grade ladders describe the grades and steps to which a worker is eligible to progress and compensation value associated with that grade and step. You can set up separate grade ladders for different types of jobs or positions in your enterprise. For example, you may create three grade ladders for your enterprise: one for technical grades, another for management grades, and a third for administrative grades.

## **Ladders with Grades**

You create ladders with grades by building a hierarchy of grades that were created without steps. When you set up this type of ladder, only grades without steps are available to add to the ladder. You cannot create a grade ladder with a combination of both grades and grades with steps.

You do not define any grade rates when you set up a ladder with grades; the rates for the grades within the ladder are inherited from the rates that were added when you set up the grades. To add or edit rates for grades, you must use the Manage Grade Rates task.

## **Ladders with Grade Steps**

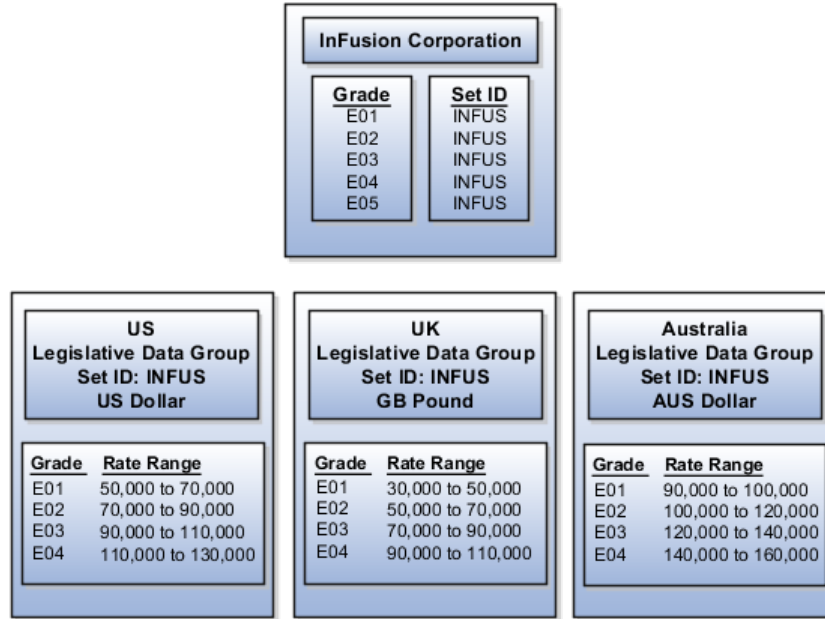
You create ladders with grade steps using grades that were created with steps. When you set up this type of ladder, only grades with steps are available to add to the ladder.

You define step rates when you set up the ladder, and the rates are unique to each ladder. You cannot share step rates between grade ladders.

# **Grades, Grade Rates, Sets, and Legislative Data Groups: How They Work Together**

You assign grades to sets, and you assign grade rates to legislative data groups. If you have grades that are common across multiple business units, you can assign the grades to the set that is associated with the business units, and then set up grade rates that are specific to each legislative data group.

The following figure illustrates how you can use sets to share grades across multiple business units and then change the grade rates for each legislative data group.



## Grades and Sets

Sets enable you to share grades that are common across business units in your enterprise. You can assign grades to either a specific set or to the common set to each grade. If you assign the grade to the common set, then the grade is available for use in all business units.

## Grade Rates and Legislative Data Groups

Grade rate values are associated with each component of compensation for your workers. While grades may be common across different areas of your enterprise, grade rates vary among the countries in which you employ people. For example, if your enterprise has engineer jobs in the United States, the United Kingdom, and Australia, you can set up grades for a set that is shared between the countries, but set up different grade rates for each country in the applicable currency.

# Setting Up Grade Ladders for Pay Scale Requirements: Worked Example

This example illustrates how to use a grade ladder to create a pay scale that is typical of technicians in the metal industry in Germany. The ladder includes four grades, and each grade includes four steps.

The following table summarizes key decisions for the grades, rates, and grade ladder in this scenario.

Decision to Consider	In This Example
Are steps required for the grades?	Yes.
Which step in each grade should be the ceiling step?	The last step in each grade.
What type of rates are necessary?	Salary rates only.
Will the ladder be created using grades or grades with steps?	Grades with steps.

To set up the pay scale, complete these tasks:

- Create grades
- Create a grade ladder

## Creating Grades

1. In the Workforce Structures work area, click **Manage Grades** to open the Manage Grades page.
2. On the Manage Grades page, click **Create** to open the Create Grade: Grade Details page.
3. In the Grade Details region of the Create Grade: Grade Details page, complete the fields as shown in this table, using the defaults unless otherwise indicated.

Field	Value
Grade Set	Common
Name	Technicians 03
Code	Tech03

4. Click **Next** to access the Create Grade: Grade Steps page.
5. In the Grade Steps region of the Create Grade: Grade Steps page, click **Add Row**.
6. Add four steps for the grade by completing the fields as shown in this table. You must click **Add Row** after adding each step.

Field	Value
Step Name	Year 1
Step Name	Year 2
Step Name	Year 3
Step Name	Year 4

7. Verify that Year 4 is the ceiling step.
8. Click **Submit**. You will add the grade rates when you create the grade ladder.
9. In the Warning dialog, click **Yes**.
10. In the Confirmation dialog, click **OK**.
11. Repeat steps 2 through 9 to add three more grades with steps. Complete the information for each grade using the information in these tables. The ceiling step in each grade is Year 4.

Field	Grade 2	Grade 3	Grade 4
Grade Set	Common	Common	Common
Name	Technicians 04	Technicians 05	Technicians 06
Code	Tech04	Tech05	Tech06

Field	Value
Step Name	Year 1
Step Name	Year 2
Step Name	Year 3
Step Name	Year 4

## Creating a Grade Ladder

1. In the Workforce Structures work area, click **Manage Grades Ladders** to open the Manage Grade Ladders page.
2. On the Manage Grade Ladders page, click **Create** to access the Create Grade Ladder: Grade Ladder Details page.
3. In the Grade Ladder Details region of the Create Grade Ladder: Grade Ladder Details page, complete the fields as shown in this table, using default values unless otherwise indicated.

Field	Value
Grade Set	Common
Name	Metal Technicians
Grade Type	Grade with steps

4. Click **Next** to access the Create Grade Ladder: Grades page.
5. In the Search Grades region of the Create Grade Ladder: Grades page, enter TECH in the **Code** field and click **Search**.
6. Select Tech03 and click **Add to Grade Ladder**.
7. Select Tech04 and click **Add to Grade Ladder**.
8. In the Add to Grade Ladder Hierarchy dialog, select **At the top** and click **OK**.
9. Select Tech05 and click **Add to Grade Ladder**.
10. In the Add to Grade Ladder Hierarchy dialog, select **At the top** and click **OK**.
11. Select Tech06 and click **Add to Grade Ladder**.
12. In the Add to Grade Ladder Hierarchy dialog, select **At the top** and click **OK**.
13. Verify that the grades appear in numerical order, with Tech06 at the top of the ladder and Tech03 at the bottom of the ladder.
14. Click **Next** to access the Create Grade Ladder: Rate Values page.
15. On the Create Grade Ladder: Rate Values page, select the legislative data group for Germany.
16. In the Grade Step Rates region, click **Add Row**.
17. Complete the following fields as shown in this table.

Field	Value
Name	Technician Ladder Rates
Rate Type	Salary
Frequency	Monthly
Annualization Factor	12
Currency	EUR

18. In the Step Rate Values region, enter rates for the four steps in each grade by completing the fields as shown in this table.

Grade Name	Step Name	Value
Technicians 03	Step 1	1,750.73
Technicians 03	Step 2	1,878.90
Technicians 03	Step 3	2,009.79
Technicians 03	Step 4	2,143.92
Technicians 04	Step 1	2,238.57
Technicians 04	Step 2	2,408.39
Technicians 04	Step 3	2,577.68
Technicians 04	Step 4	2,744.81
Technicians 05	Step 1	2,831.87
Technicians 05	Step 2	3,047.14
Technicians 05	Step 3	3,257.52
Technicians 05	Step 4	3,469.00
Technicians 06	Step 1	3,586.36
Technicians 06	Step 2	3,851.38
Technicians 06	Step 3	4,122.34
Technicians 06	Step 4	2,143.92

19. Click **Next**.
20. On the Create Grade Ladder: Review page, review the grade ladder hierarchy and the rates, and click **Submit**.
21. In the Warning dialog, click **Yes**.
22. In the Confirmation dialog, click **OK**.

## Setting Up Grade Ladders for Spine Point Requirements: Example

This example illustrates how you can use grades, rates, and a grade ladder to represent spine points.

### Scenario

Some organizations, such as in the public sector in the United Kingdom (UK), use spine points to structure their grades. Each point corresponds to one or more steps within a grade, as grades often overlap each other.

## Grade Structure

You can use grade ladders to meet the requirements of a grade structure with spine points. This example shows a grade structure with spine points that is similar to one for university workers in the UK.

The following figure illustrates an example of a grade structure with spine points.

Spine Point	Salary	Grade	
1	25,674		1
2	26,361		
3	27,068		
4	27,796		
5	30,394		
6	31,778	2	
7	32,648		
8	33,542		
9	34,466		
10	35,425		
11	38,441		
12	39,510		3
13	40,634		
14	41,746		
15	42,914		
16	44,118		
17	45,358		

## Analysis

To set up grades for the spine point structure, you must:

- Create three grades with steps and name each step using the spine point number
- Create a grade ladder with all three grades
- Create step rates with annual salary amounts

To create the grades needed for the grade structure with spine points, you must create three grades with steps. You can name the steps using the spine point numbers. The following table lists the grades and steps needed to meet the requirements of the grade structure with spine points.

Grade Name	Steps	Ceiling Step
Grade 1	<ul style="list-style-type: none"> <li>• Spine Point 1</li> <li>• Spine Point 2</li> <li>• Spine Point 3</li> <li>• Spine Point 4</li> <li>• Spine Point 5</li> <li>• Spine Point 6</li> </ul>	Spine Point 5



Grade 2	<ul style="list-style-type: none"> <li>• Spine Point 6</li> <li>• Spine Point 7</li> <li>• Spine Point 8</li> <li>• Spine Point 9</li> <li>• Spine Point 10</li> <li>• Spine Point 11</li> <li>• Spine Point 12</li> </ul>	Spine Point 11
Grade 3	<ul style="list-style-type: none"> <li>• Spine Point 12</li> <li>• Spine Point 13</li> <li>• Spine Point 14</li> <li>• Spine Point 15</li> <li>• Spine Point 16</li> <li>• Spine Point 17</li> </ul>	Spine Point 17

To create the grade ladder for the grade structure with spine points, you must create a ladder using grades with steps. When you create the rates, use annual salary amounts. The following table lists the grades, steps, and rates to add to the ladder.

Grade	Steps	Rates
Grade 1	<ul style="list-style-type: none"> <li>• Spine Point 1</li> <li>• Spine Point 2</li> <li>• Spine Point 3</li> <li>• Spine Point 4</li> <li>• Spine Point 5</li> <li>• Spine Point 6</li> </ul>	<ul style="list-style-type: none"> <li>• 25,674</li> <li>• 26,631</li> <li>• 27,068</li> <li>• 27,796</li> <li>• 30,394</li> <li>• 31,778</li> </ul>
Grade 2	<ul style="list-style-type: none"> <li>• Spine Point 6</li> <li>• Spine Point 7</li> <li>• Spine Point 8</li> <li>• Spine Point 9</li> <li>• Spine Point 10</li> <li>• Spine Point 11</li> <li>• Spine Point 12</li> </ul>	<ul style="list-style-type: none"> <li>• 31,778</li> <li>• 32,648</li> <li>• 33,542</li> <li>• 34,466</li> <li>• 35,425</li> <li>• 38,441</li> <li>• 39,510</li> </ul>

Grade 3	• Spine Point 12	• 39,510
	• Spine Point 13	• 40,634
	• Spine Point 14	• 41,746
	• Spine Point 15	• 42,914
	• Spine Point 16	• 44,118
	• Spine Point 17	• 45,358

## FAQs for Define Grades

### Can I edit the legislative data group for a grade rate?

No. If you need to change the legislative data group for a grade rate, then you must change the grade rate to inactive, and create a new grade rate with the correct legislative data group.

### How can I add rates to grade steps?

You add rates for a grade with steps when you add the grade to a grade ladder.

## Define Workforce Structures: Define Jobs and Positions

### Jobs: Explained

As part of your initial implementation, you specify whether to use jobs and positions, or only jobs. Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

#### Basic Details

Basic details for a job include an effective start date, a job set, a name, and a code.

A job code must be unique within a set. Therefore, you can create a job with the code DEV01 in the US set and another job with the same code in the UK set. However, if you create a job with the code DEV01 in the Common set, then you cannot create a job with the same code in any other set.

#### Benchmark Information

You can identify a job as being a benchmark job. A benchmark job represents other jobs in reports and salary surveys. You can also select the benchmark for jobs. Benchmark details are for informational purposes only. A progression job is the next job in a career ladder.

#### Progression Information

Progression jobs enable you to create a hierarchy of jobs and are used to provide the list of values for the Job field in the Promote Worker and Transfer Worker tasks. The list of values includes the next three jobs in the progression job hierarchy. For example, assume that you create a job called Junior Developer and select Developer as the progression job. In the Developer job, you select Senior Developer as the progression job. When you promote a junior developer, the list

of values for the new job will include Developer and Senior Developer. You can select one of these values, or select another one.

### Jobs and Grades

You can assign grades that are valid for each job. If you are using positions, then the grades that you specify for the job become the default grades for the position.

### Evaluation Criteria

You can define evaluation criteria for a job, including the evaluation system, a date, and the unit of measure for the system. One predefined evaluation system is available, and that is the Hay system. An additional value of Custom is included in the list of values for the Evaluation System field, but you must add your own criteria and values for this system.

### Uploading Jobs Using a Spreadsheet

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

## Jobs: Example

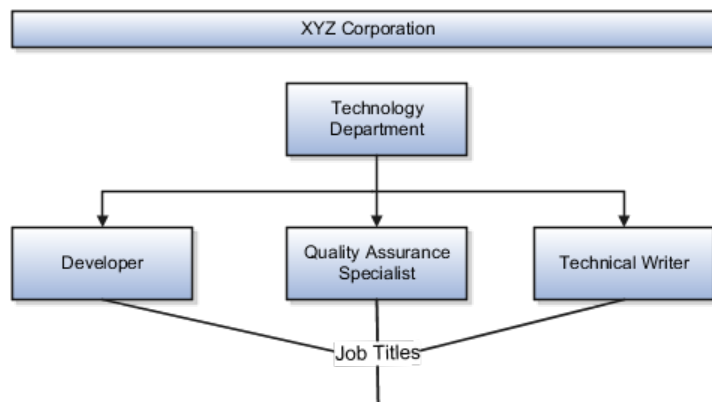
Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

### Software Industry

For example, XYZ Corporation has a director over the departments for developers, quality assurance, and technical writers. Recently, three developers have left the company. The director decides to redirect the head count to other areas. Instead of hiring all three back into development, one person is hired to each department, quality assurance, and technical writing.

In software industries, the organization is fluid. Using jobs gives an enterprise the flexibility to determine where to use head count, because the job only exists through the person performing it. In this example, when the three developers leave XYZ Corporation, their jobs no longer exist, therefore the corporation has the flexibility to move the headcount to other areas.

This figure illustrates the software industry job setup.



## Positions: Examples

Positions are typically used by industries that use detailed approval rules, which perform detailed budgeting and maintain head counts, or have high turnover rates.

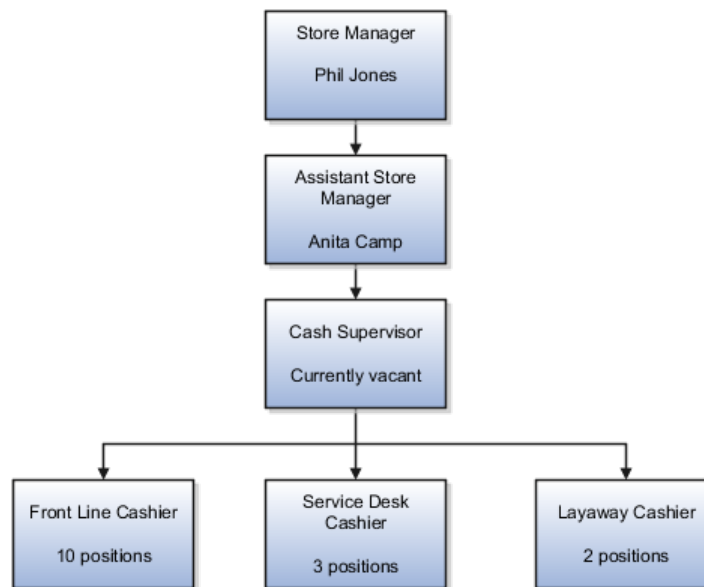
### Retail Industry

ABC Corporation has high turnover. It loses approximately 5% of their cashiers monthly. The job of cashier includes three positions: front line cashier, service desk cashier, and layaway cashier. Each job is cross trained to take over another cashier position. When one cashier leaves from any of the positions, another existing cashier from the front line, service desk or layaway can assist where needed. . But to ensure short lines and customer satisfaction, ABC must replace each cashier lost to turnover.

Since turnover is high in retail it is better for this industry to use positions. There is an automatic vacancy when an employee terminates employment. The position exists even when there are no holders. This is important if the person who leaves the company is a manager or supervisor with direct reports. All direct reports continue reporting to the position even if it is empty. You do not need to reassign these employees to another manager or supervisor; the replacement manager is assigned to the existing position.

Also, an advantage to using positions is that when you hire somebody new many of the attributes are defaulted in from the position. This speeds up the hiring process.

This figure illustrates the retail position setup.



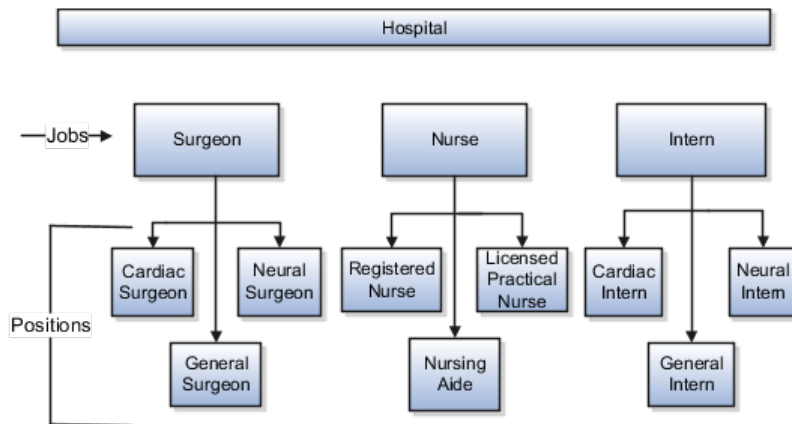
### Health Care Industry

The hospital has a structured head count and detailed budgeting. For example, a specific number of surgeons, nurses, and interns of various types are needed.

These positions need to be filled in order for the hospital to run smoothly. Use jobs and positions if you need to apply detailed head count rules.

Health care is an industry that needs to regulate employment, roles, and compensation according to strict policies and procedures. Fixed roles tend to endure over time, surviving multiple incumbents. Industries that manage roles rather than individuals, where roles continue to exist after individuals leave, typically model the workforce using positions.

This figure illustrates the hospital position setup.



## Job and Position Lookups: Explained

This topic identifies common lookups that are job and position-related and for which you can create new lookup values. Review these lookups, and update them as appropriate to suit enterprise requirements.

### Job Lookups

Job lookups are described in the following table.

Lookup Type	Description
JOB_FUNCTION_CODE	Description of the primary function of a job. Used for grouping and reporting jobs of like functions.
MANAGER_LEVEL	Description of the seniority of a manager.
EVAL_SYSTEM	Identifies the evaluation system used for the job or position.
EVAL_SYSTEM_MEAS	Measurement unit for the evaluation criteria.

### Position Lookups

Position lookups are described in the following table.

Lookup Type	Description
SECURITY_CLEARANCE	Classifies if security clearance is needed.
EVAL_SYSTEM	Identifies the evaluation system used for the job or position.
EVAL_SYSTEM_MEAS	Measurement unit for the evaluation criteria.

BARGAINING_UNIT_CODE	Identifies a legally organized group of people which have the right to negotiate on all aspects of terms and conditions with employers or employer federations.
PROBATION_PERIOD	Specifies the unit of measurement for the probation period of a position. For example, 365 "Day", 52 "Week", 12 "Month", or 1 "Year".

## Uploading Workforce Structures Using a Spreadsheet Explained

You can upload multiple objects at one time using a spreadsheet, for the following workforce structures:

- Jobs
- Locations
- Departments

For each of the above workforce structures, you can download a predefined spreadsheet template from the application. You can work on the spreadsheet offline, and upload the spreadsheet back to the application once your changes are complete. You can upload the spreadsheet multiple times to accommodate revisions.

### Effective Start Date

Ensure that the effective start date of the workforce structure is same as or earlier than the hire date of persons associated with the workforce structure; for example, enter a job start date earlier than the hire date of persons associated with the job. You may want to consider creating all objects as of a common early date, for example, create all locations with a start date 1-1-1950.

### Entering Descriptive Flexfield Values

Use the Attribute columns in the main sheet to enter values for the descriptive flexfields, already defined for the object. Use the DFF Reference sheet to understand which attribute columns map to which existing descriptive flexfields, since this information is not displayed in the main sheet. Note that you cannot enter anything in the DFF Reference sheet, you can only view details of the existing descriptive flexfields.

### Uploading Jobs Using a Spreadsheet

Note that you cannot create a new job profile when uploading jobs using a spreadsheet; you can only associate an existing job profile. You must enter the name of an existing job profile name in the spreadsheet.

## Define Workforce Structures: Define Worker Directory

## Search Relevance Profile Options: Explained

The strength of the relationship between the person performing a gallery search and each person whose assignment appears in the search results can determine

the order of the results: the stronger the relationship, the closer to the top of the results an assignment appears. The search relevance profile options control how the strength of the relationship between the searcher and the search result is calculated.

### Weighting Profile Options

Using the following profile options, you can change the weighting applied to the relevant factors.

Profile Option	Description
HR: Organization Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the organization hierarchy proximity factor.
HR: Position Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the position hierarchy proximity factor.
HR: Manager Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the manager hierarchy proximity factor.
HR: Location Proximity Weight	Specifies the weighting applied to the relationship strength value for the location proximity factor.
HR: Selection History Weight	Specifies the weighting applied to the relationship strength value for the selection history factor.
HR: Social Network Weight	Specifies the weighting applied to the relationship strength value for the social network factor.

The default value of each weighting profile option is 0.5. To increase the relevance of a factor relative to other factors, you increase its weighting; to decrease its relevance, you reduce its weighting.

### HR: Selection History Timeout

The number of times the searcher selects a person's assignment from the search results during a specified period, which is 7 days by default, is recorded automatically. You can specify this period for the enterprise on the HR: Selection History Timeout profile option.

### HR: Maximum Hierarchy Proximity

When the searcher's primary assignment is in the same organization, position, or manager hierarchy as a person's assignment, the strength of the relationship depends on their proximity to each other in the hierarchy. The maximum number of hierarchy boundaries to include in the calculation is 4 by default. You can set this value for the enterprise on the HR: Maximum Hierarchy Proximity profile option.

### HR: Relationship Priority Factor

The searcher can specify a rating for a search result, and each rating is associated with a multiplying factor. On this profile option, you can specify the highest possible multiplying factor that can be applied to a search result. By default, the multiplying factor is 2. If you increase its value, you increase the significance of the searcher's own ratings relative to other factors.

# Define Workforce Structures: Manage Trees

## Oracle Fusion HCM Trees: Explained

Oracle Fusion trees are graphical representations of hierarchical data such as the structure of your organization. Oracle Fusion Human Capital Management (HCM) provides predefined tree structures for department, organization, position, and geography trees. You cannot change the predefined HCM tree structures. With the exception of geography trees, you can create multiple trees for each HCM tree type, and multiple versions of each tree. For all HCM tree types, however, only one version of each tree can be active at one time.

### Department Trees

Using the predefined tree structure for a department tree, you can create multiple department trees and then create multiple versions of each tree to build hierarchical representations of the departments within your organization. The top node of the tree is a department, and all of the child nodes are also departments. You can have only one top-level node for a department tree, and you cannot add a department as a node more than one time in the same tree version.

You can use department trees for the following purposes:

- Secure data by using a department tree in an organization security profile.
- Create custom gallery messages to appear in the portraits of workers assigned to departments within a department tree. For example, you may create a gallery message notifying workers of a server outage or a public holiday in a particular location.

### Organization Trees

If you use the Oracle Fusion Enterprise Structures Configurator to set up your enterprise structure, a default organization tree is created automatically for you, with the ultimate holding company as the first node, divisions and country holding companies as the second level, and legal employers as the third level. You can modify the organization tree as needed, and you can create additional organization trees. If you do not use the Enterprise Structures Configurator, then you can create organization trees based on the predefined organization tree structure. In an organization tree, you can select any type of organization for the top node and for the child nodes, but you can have only one top-level node.

You can secure HCM data by using an organization tree to identify organizations in an organization security profile.

### Position Trees

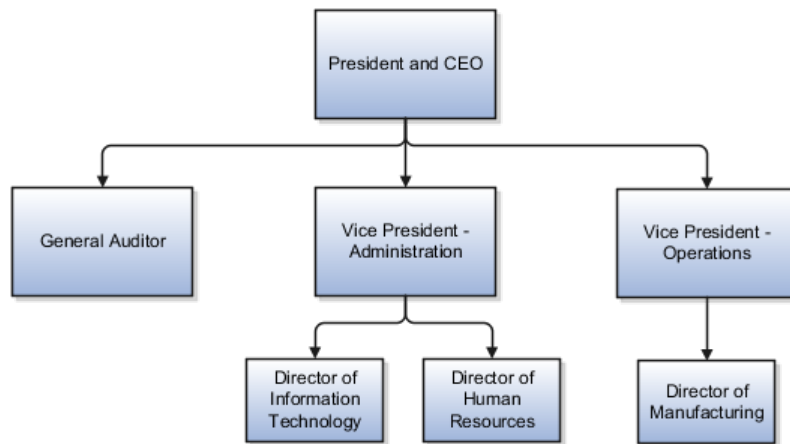
Using the predefined tree structure for a position tree, you can create multiple position trees and then create multiple versions of each tree to establish reporting relationships among positions. You can have only one top-level node for a position tree.

You can use position trees for the following purposes:



- Review position hierarchies for budgeting and organizational planning.
- Secure access to positions by identifying a position hierarchy in a position security profile. For example, you can create a position security profile that includes all positions in a position hierarchy below a specified top position. You can also include the position security profile in a person security profile to secure access to person records. In this case, the person security profile includes the person records of the people who occupy the positions in the position security profile.

The following figure illustrates a position hierarchy that you can establish using a position tree.

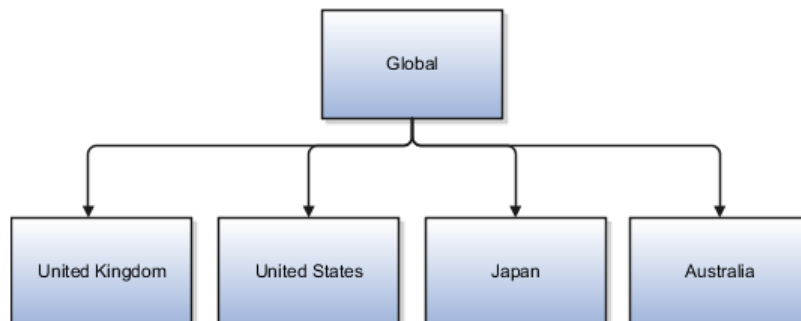


## Geography Trees

Using the predefined tree structure for a geography tree, you create a version of a geography tree to represent the countries in which your organization operates. Although you can create multiple versions, you can create only one geography tree, and the tree can have only two levels in the hierarchy. You can have only one top-level node for a geography tree.

You can use the geography tree to specify the locations to which calendar events apply. If an event applies to your entire enterprise, then you can attach it to the top-level node in the tree. If an event applies only to specific countries or territories in your enterprise, then you can attach it to the nodes for those specific countries.

This figure illustrates the geographical hierarchy that you can establish using a geography tree.





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## Common Applications Configuration: Define Batch Data Loads

### The Load Batch Data Process: Explained

HCM Data Loader, which you invoke using the Load Batch Data task, is an open-interface process for loading volume data, for a specific subset of objects, into Oracle Fusion Human Capital Management (HCM).

As HCM Data Loader uses Oracle Fusion object and service interfaces to load the data, the following occur during the data load:

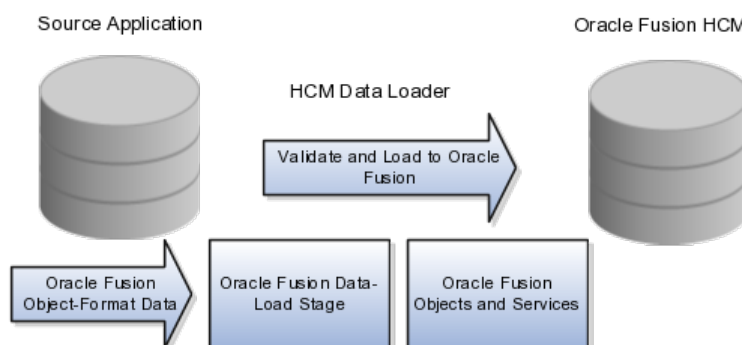
- Data is validated using business logic.
- Default values are used where necessary.
- Events are generated where applicable.
- Other post-processing logic is applied.

HCM Data Loader is used:

- By HCM coexistence, the packaged solution for integrating applications such as Oracle PeopleSoft HRMS and Oracle E-Business Suite HRMS with Oracle Fusion HCM
- By HCM Spreadsheet Data Loader, which generates spreadsheets from which you can load HCM business objects to Oracle Fusion HCM
- By Oracle Fusion configuration tools, such as the Enterprise Structures Configurator
- To import users

HCM Data Loader is also available for use by other source applications.

The following figure shows an overview of the data-load process.



To use the HCM Data Loader, you:

1. Map data between your source application and Oracle Fusion HCM.
2. Extract data from your source application and place it in the HCM Data Loader staging tables in the supported Oracle Fusion HCM object-data format.
3. Run the Load Batch Data process to load the data into Oracle Fusion HCM.

## Loading Batch Data into Oracle Fusion: Explained

The Load Batch Data process, which you run from the Data Exchange work area, imports data into Oracle Fusion from external sources.

From the Load Batch Data page, you can:

- Load data to the Oracle Fusion application tables (for example, for HCM coexistence or HCM Spreadsheet Data Loader).
- Monitor data loads.
- Correct data errors.
- Rerun data loads.

### Loading Data for HCM Coexistence

To load data for HCM coexistence, you run the HCM coexistence process Load HCM Data, which comprises two phases: Import and Load. If you select both phases of that process, then the Load Batch Data process runs automatically to complete the Load phase. If you select the Import phase only, then you must run the Load Batch Data process manually to complete the Load phase. In this case, when running Load Batch Data you select the batch name that you created for the HCM coexistence process Load HCM Data.

### Monitoring Data Loads

You can monitor the status of a data load in the **Batch Status** column of the Search Results section of the Load Batch Data page. Detailed information about any data load that you select in the Search Results section appears in the Details section of the page.

### Correcting Data Errors

On the Failed tab in the Details section for a batch data load, you can see the details of any errors.

To resolve the errors and complete the data load, you can:

- Change the status of objects with errors to **Ignore** to prevent them from being processed when you next run the data load.
- Select all objects with errors in the Details section and select **Create Batch**. The selected objects are removed from the original batch and added to a new batch, so that you can fix the problems later.

- View the details of objects with errors from the **Failed Objects** column of the Batch Summary tab in the Details section, and correct the data. These corrections are applied to the data in the stage table. This approach is helpful if you want to be sure that the correction has fixed the original error before applying it to the source data. However, when uploading HCM coexistence data you must still apply any corrections to the source data; otherwise, discrepancies between the source data and the data loaded into Oracle Fusion will cause errors when you next load the data.

### **Rerunning Data Loads**

After correcting any errors, you can select the batch file in the Search Results section and click **Run**. Any object with the status **Error in Row** is reset to **Ready to Process** and included in the load. Objects with the status **Successful** or **Ignore** are not processed.

## **Load Batch Data Parameters**

The Load Batch Data process imports batch data into the Oracle Fusion application tables from the HCM Data Loader's staging tables. You run Load Batch Data from the Data Exchange work area.

When you schedule the Load Batch Data process, you specify values for the following parameters.

### ***Load Batch Data Parameters***

#### **Batch Name**

The name of the batch file to be loaded.

#### **Loader Chunk Size**

The number of logical business objects that a single Load Batch Data thread processes in a single action.

#### **Loader Maximum Errors Allowed**

The maximum number of errors in a thread before processing terminates. If an error occurs during the processing of a complex logical business object (such as a person record), then all rows for that business object are rolled back and marked as Error in Row.

#### **Loader Number of Processes**

The number of Load Batch Data threads to run in parallel. If you are processing large amounts of data (for example, more than 1000 rows) or complex data (such as person and work relationship data) consider running 4 or 8 threads in parallel.

## **Data-Load Batch-Status Values: Explained**

The Data Exchange work area displays batch-status values for the Load Batch Data and Load HCM Data for Coexistence tasks. This topic explains the batch-status values.

Batch Status	Description
New	The batch is new and has not been processed.
Processing	The data-load process for the batch is currently running.
Refresh AM	The data-load process for the batch is performing an internal refresh against the Application Module (clearing the loader cache).
Canceled	The data-load process for the batch has been canceled.
Complete with Errors	Data-load processing for the batch is complete; object instance errors exist.
System Error	The data-load process for the batch was terminated by a system error.
Complete	The data-load process for the batch completed successfully.

## Data-Load Object-Status Values: Explained

From the Batch Summary and Failed tabs in the Details section of the Load Batch Data page, you can display information about the load status of individual business objects. This topic explains the object-status values.

Object Status	Description
New	The object is new and has not been processed.
Pending Action	During the import phase, a validation error occurred for the object instance. (Typically, this status is set by Oracle Data Integrator.)
Ready to Process	The object has not been processed but is ready for processing.
Error in Row	The object is in error. Either the object itself is in error or the complex business object to which it belongs is in error.
Ignore	The object is to be ignored during processing.
Successful	The object has been successfully processed.

## Uploading Data Using HCM Spreadsheet Data Loader: Explained

HCM Spreadsheet Data Loader enables you to upload business objects to Oracle Fusion Human Capital Management (HCM) from a spreadsheet. Business objects that you can upload include person and assignment data, grades, jobs, benefit plan types, content items, performance templates, and rating models. You can view the complete list of supported business objects on the Initiate Data Load page, where objects appear in the recommended load order.

This topic describes:

- How data is uploaded using HCM Spreadsheet Data Loader

- How to correct upload and processing errors
- When to use HCM Spreadsheet Data Loader
- Who can use HCM Spreadsheet Data Loader
- Spreadsheet and batch names

## How Data Is Uploaded Using HCM Spreadsheet Data Loader

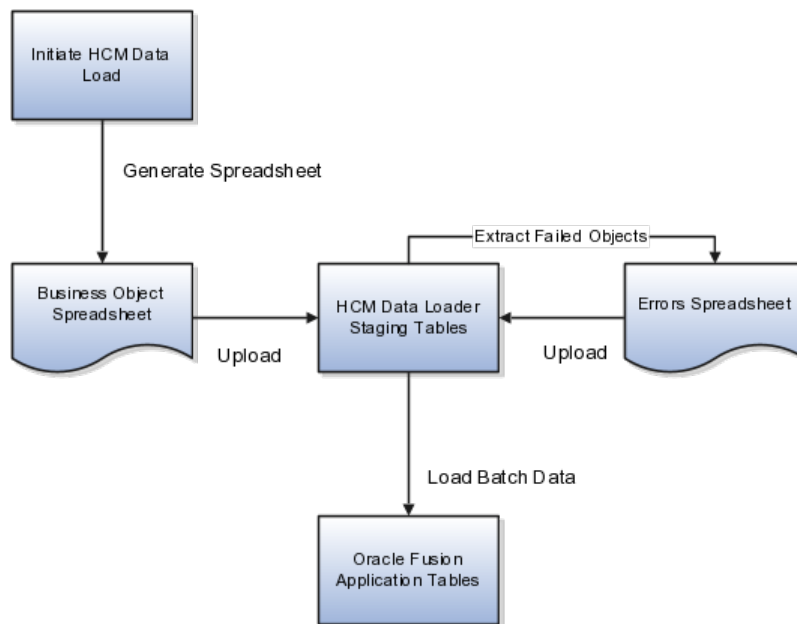
Uploading business objects using HCM Spreadsheet Data Loader is a two-stage process. You:

1. Generate a spreadsheet for a single HCM business object, enter data in the spreadsheet, and upload the data to a named batch in the HCM Data Loader staging tables.

HCM Data Loader is a generic process for loading data to Oracle Fusion HCM from external sources.

2. Run the Load Batch Data process to transfer data from the HCM Data Loader staging tables to the Oracle Fusion application tables.

The following figure, which also shows one approach to error correction, summarizes both stages of this process.



## Correcting Upload Errors

When you upload data from a spreadsheet to a batch in the HCM Data Loader staging tables, the status of each spreadsheet row is updated to show whether the row was inserted successfully in the batch. If the row insertion fails, you can double-click the status value to display information about the error. After correcting the error, you upload the corrected data to the existing batch.

## Correcting Load Batch Data Errors

When you run Load Batch Data to transfer data from the HCM Data Loader staging tables to the Oracle Fusion application tables, the data is validated.

If errors occur, you can:

- Download objects in error to an errors spreadsheet, correct the errors, and upload the corrected data to the existing batch.

Each time you download objects in error for a batch, a new spreadsheet is generated with the existing batch name. If you overwrite the existing batch name in the errors spreadsheet with a new batch name, then the existing batch in the HCM Data Loader staging tables is renamed using the new batch name.

Once the data is uploaded successfully, you run Load Batch Data again for the batch.

- Correct the errors in the HCM Data Loader staging tables and rerun the batch. Only corrected data is transferred to the Oracle Fusion application tables.

You may prefer this approach if there are very few errors or you do not need to maintain the source data.

### **When to Use HCM Spreadsheet Data Loader**

You can use HCM Spreadsheet Data Loader to create any of the business objects that it supports and edit person and assignment data; however, you cannot use HCM Spreadsheet Data Loader to delete business objects. Supported actions for each business object appear on the Initiate Data Load page.

Each business object is represented as a single row in the spreadsheet. Any hierarchical data that you can upload with HCM Spreadsheet Data Loader has been flattened to accommodate single-row representation.

HCM Spreadsheet Data Loader is most efficient for uploading medium or large amounts of data. For example, if your enterprise has 100 job definitions or 60 performance templates, creating those business objects in a spreadsheet and uploading them to Oracle Fusion HCM is likely to be more efficient than creating them individually using the Create Job or Create Performance Template interfaces. However, if you need to create just a few business objects, it may be quicker to use the Oracle Fusion HCM interfaces.

### **Who Can Use HCM Spreadsheet Data Loader**

To use HCM Spreadsheet Data Loader, you can:

- Perform the Initiate HCM Spreadsheet Load task from the Setup and Maintenance work area or an implementation project.
- Perform the Initiate Data Load task from the Data Exchange work area.

Users who have the Human Capital Management Application Administrator job role can perform the Initiate HCM Spreadsheet Load task. Users who have the Application Implementation Consultant job role can perform both tasks; both job roles inherit the HRC\_SPREADSHEET\_LOADING\_DUTY duty role.

### **Spreadsheet and Batch Names**

If you are uploading several types of business objects over a period of time, devise a naming scheme for the generated spreadsheets that enables you to



locate spreadsheets easily on your desktop. For example, you could include both the business-object type and the date in the spreadsheet names. If you upload several batches of data of a single type on one date, you can use a suffix value to differentiate spreadsheets.

Batch names are generated automatically but you can overwrite them. They identify batches submitted to the Load Batch Data process and must be unique. Using the same names for spreadsheets and batches will help you quickly to associate a spreadsheet with the batch to which you load it. For example, for uploading rating models on 01/08/13, you could use the spreadsheet name RatingModels010813.xlsx and the batch name RatingModels010813.

## Uploading Data Using HCM Spreadsheet Data Loader: Worked Example

This example shows how to upload positions for the enterprise Sales Department.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which business objects will I load?	Positions
What are my spreadsheet names?	<ul style="list-style-type: none"><li>SalesPositionsMMDDYYBatchnn.xlsx</li><li>SalesPositionsMMDDYYBatchnnErrorsnn.xlsx</li></ul>
What is my batch name?	SalesPositionsMMDDYYBatchnn
Where will I fix Load Batch Data errors?	In the spreadsheet SalesPositionsMMDDYYBatchnnErrorsnn.xlsx

## Summary of the Tasks

Upload the position data by:

1. Selecting the Initiate HCM Spreadsheet Load task
2. Creating the positions spreadsheet
3. Entering data in the positions spreadsheet
4. Uploading positions data to the HCM Data Loader staging tables
5. Loading positions data to the application tables from the HCM Data Loader staging tables
6. Reviewing the results of the Load Batch Data process and correcting errors

## Prerequisites

Before you can complete this task, you must have:

1. Installed the desktop client Oracle ADF 11g Desktop Integration

2. Enabled the Trust Center setting **Trust access to the VBA project object** in Microsoft Excel

## Selecting the Initiate HCM Spreadsheet Load Task

1. On the Overview page of the Setup and Maintenance work area, click the **All Tasks** tab.
2. In the Search region, complete the fields as shown in this table.

Field	Value
Search	Task
Name	Initiate HCM Spreadsheet Load

3. Click **Search**.
4. In the search results, click **Go to Task** for the Initiate HCM Spreadsheet Load task.

Alternatively, you can start the Initiate HCM Spreadsheet Load task from an implementation project or select the Initiate Data Load task in the Data Exchange work area.

## Creating the Positions Spreadsheet

1. On the Initiate Data Load page, find the entry for Create Position in the list of business objects.

Notice that Create Position appears after other business objects such as departments, locations, and jobs, emphasizing that those business objects (regardless of how you create them) must be defined before positions.

2. Click **Create Spreadsheet** for the Create Position entry.
3. When prompted, save the spreadsheet locally using the name SalesPositions113012Batch01.xlsx.
4. When prompted, sign in to Oracle Fusion Applications using your Oracle Fusion user name and password.

## Entering Data in the Positions Spreadsheet

1. In the **Batch Name** field of the spreadsheet SalesPositions113012Batch01.xlsx, replace the default batch name with the batch name SalesPositions113012Batch01.
2. Enter position data in the spreadsheet.

Ensure that you provide any required values and follow instructions in the spreadsheet for creating additional rows.

## Uploading Positions Data to the HCM Data Loader Staging Tables

Use the default values except where indicated.

1. In the positions spreadsheet, click **Upload**.
2. In the Upload Options window, click **OK**.

As each row of data is uploaded to the HCM Data Loader staging tables, its status is updated.

3. When uploading completes, identify any spreadsheet rows with the status **Insert failed**, which indicates that the row failed to upload.
4. For any row that failed to upload, double-click the status value to display a description of the error.
5. When you have corrected any errors, click **Upload** again to load the remaining rows to the same batch.

## Loading Positions Data to the Application Tables from the HCM Data Loader Staging Tables

Use the default values except where indicated.

1. In Oracle Fusion Applications, select **Navigator - Workforce Management - Data Exchange**.
2. In the Tasks pane of the Data Exchange work area, click **Load Batch Data**.
3. In the Search region of the Load Batch Data page, enter the batch name SalesPositions113012Batch01 in the **Batch Name** field.
4. Click **Search**.
5. In the Search Results region, select the batch SalesPositions113012Batch01 and click **Run**.
6. On the Schedule Request page, click **Submit**.

## Reviewing the Results of the Load Batch Data Process and Correcting Errors

1. On the Load Batch Data page, search again for the batch SalesPositions113012Batch01 and review its status in the **Batch Status** column of the Search Results region.
2. If the batch status is Complete, click **Done** to close the Load Batch Data page; otherwise, continue with the next step.
3. If the batch completed with errors, select the batch in the Search Results.
4. On the Batch Summary tab of the Batch Details region, select **Action - Extract Failed Objects to Spreadsheet**.

An errors spreadsheet is created automatically.

5. Save the errors spreadsheet locally as SalesPositions113012Batch01Errors01.xlsx.
6. Leave the batch name in the errors spreadsheet as SalesPositions113012Batch01.
7. Review the error messages in the spreadsheet and correct the errors.

8. Repeat this process from the section Uploading Positions to the HCM Data Loader Staging Tables until all errors are fixed.

If further errors occur, increment the errors-spreadsheet suffix by 1 (for example, SalesPositions113012Batch01Errors02, SalesPositions113012Batch01Errors03, and so on.)

9. Click **Done** to close the Load Batch Data page.

To load a new batch of positions for the Sales Department on the same date, increment the batch number in the spreadsheet and batch names (for example, SalesPositions113012Batch02).

## FAQs for Define Batch Data Loads

### What happens if I cancel a Load Batch Data process?

The Load Batch Data process completes the processing of any business objects currently in progress, but does not process further objects.

### Can I load date-effective data using HCM Spreadsheet Data Loader?

Yes. You can create date-effective business objects. You can also update date-effective person and assignment data using HCM Spreadsheet Data Loader.

You cannot delete or correct date-effective data using HCM Spreadsheet Loader.

### How can I fix HCM Spreadsheet Data Loader errors?

Errors may occur when you run the Load Batch Data process to transfer data from the HCM Data Loader staging tables to the Oracle Fusion application tables. You can fix these errors in the staging tables by navigating to the object detail from the **Total Objects** column (click the number of objects) on the Failed tab in the Details section of the Load Batch Data page. This approach may be suitable if there are few errors or you do not need to correct the source data.

Alternatively, you can download error rows from the HCM Data Loader staging tables to a spreadsheet by selecting **Action - Extract Failed Objects to Spreadsheet** on the Batch Summary tab of the Details region on the Load Batch Data page. In this case, a spreadsheet containing the rows in error is generated automatically. After fixing the errors in the spreadsheet, you upload the corrected data to the staging tables and run Load Batch Data again. This solution is available only for data initially uploaded using HCM Spreadsheet Loader.

### How can I manage dependencies between business objects when using HCM Spreadsheet Data Loader?

When you load business objects using HCM Spreadsheet Data Loader, you must take data dependencies into account. For example, any attempt to load positions will fail if the jobs that they reference do not exist. You can avoid data-

dependency errors by following the order in which business objects are listed on the Initiate Data Load page. For example, Create Location appears before Create Business Unit on the Initiate Data Load page, which indicates that you must create locations before you can create business units.

You can create business objects using any of the available methods. For example, you can create locations on the Create Location page before uploading business units using HCM Spreadsheet Data Loader.



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# Common Applications Configuration: Define Workforce Profiles and Social Networking

## Profile Management: Explained

Profile management provides a framework for developing and managing talent profiles that meet your industry or organizational requirements. Profiles summarize the qualifications and skills of a person or a workforce structure such as a job or position. Profiles are valuable for tracking workers' skills, competencies, and accomplishments, and for various talent management activities, such as career planning, identifying training needs, performance management, and in the recruitment process for identifying job requirements and suitable applicants.

This topic discusses:

- Profile search
- Profile comparison
- Best-fit analysis

### Profile Search

You can search profiles for workers, jobs, and positions with certain criteria. For example, an HR (Human Resources) specialist in London who is looking to fill an applications developer position from within the company can search for profiles of all workers who are based in London and have experience with Java and PL/SQL.

### Profile Comparison

Using the comparison feature, you can compare profiles to determine next career moves or training needs for workers, and identify suitable candidates for jobs. For example, if John is looking for his next career move, he can compare his profile to that of a job to determine whether his competency ratings match the targeted competency ratings in a job profile. For example, if his Teamwork rating is 3 and the Product Strategy Teamwork requirement is 4, he has a deficiency of -1. John and his manager can use this gap to drive development plans and for other talent management-related functions.

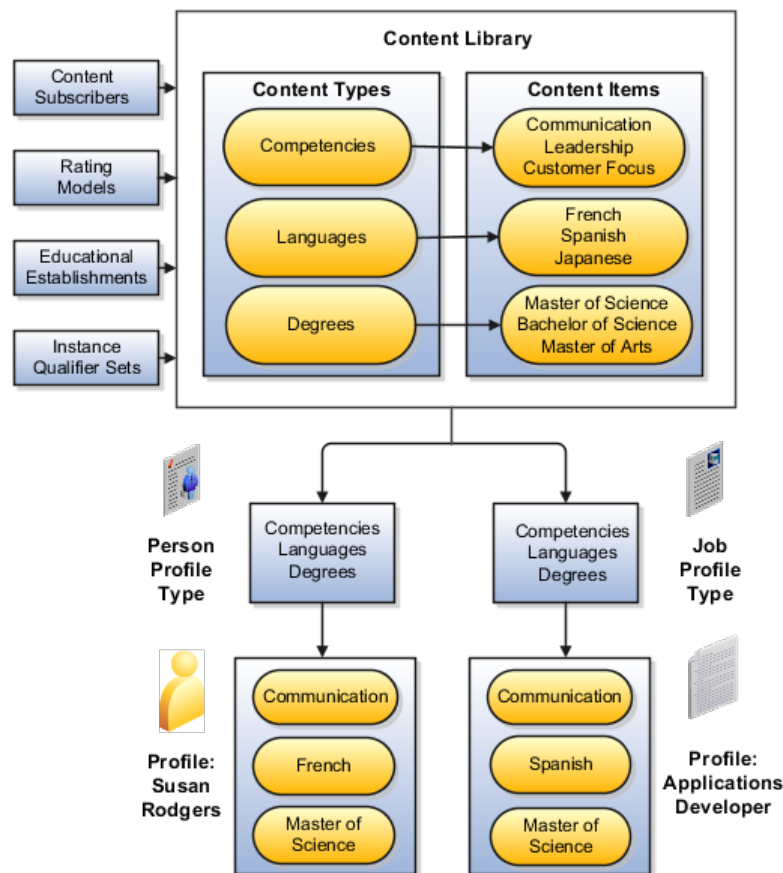
## Best-Fit Analysis

Use the best-fit analysis to determine the person profile that most closely matches a job profile, or the job profile that is the best match for a person profile. For example, if you are trying to fill a Developer vacancy, and the job profile requires a B.S. degree in Computer Science, level 4 expertise coding Java, and a Teamwork rating of at least 3, you can review an automatically-generated list of workers who most closely match this set of requirements. You can also use the best-fit analysis to find workers who are similar to a selected worker, or jobs that are similar to a selected job.

## Oracle Fusion Profile Management Components: How They Work Together

You can configure Oracle Fusion Profile Management to meet your business requirements using these components: the content library, profiles and profile types, content subscribers, educational establishments, instance qualifier sets, and rating models.

This figure illustrates how the components of Profile Management fit together.



### Content Library

The content library provides the foundation for profiles as it stores both content types and content items.



## **Profile Types**

Profile types are templates that you use to create profiles. Profile types determine whether the profile is for a person or for a workforce structure such as a job or a position, and the content of the profile. You select content types from the content library to create content sections for the profile type.

## **Profiles**

You create person profiles for individual workers and model profiles for workforce structures, such as a jobs or positions. The information that you complete for the profile is determined by how the profile type has been set up. For example, a person profile might contain information about a person's education, language skills, competencies, and activities and interests. A job profile might contain information about the requirements for the job, such as competencies, language skills, degrees, or certifications.

## **Content Subscribers**

Content subscribers are applications external to Oracle Fusion Profile Management that use content types.

## **Educational Establishments**

You can define educational establishments for workers to use when they add education information, such as degrees, to their profile.

## **Instance Qualifier Sets**

You assign instance qualifiers to content types. Instance qualifier sets uniquely identify multiple instances of a content item on a profile. For example, if multiple people update a performance rating for a competency on a worker's profile, instance qualifiers provide a unique identifier to each instance of the competency so that you can determine who provided each rating.

## **Rating Models**

When you create content types in the content library, you can attach rating models to determine the scale for measuring performance and proficiency. You can also use rating models to measure the risk and impact of loss for workers, and to measure their potential.

# **Oracle Fusion Profile Management, Performance Management, Goal Management, and Talent Review: How They Work Together**

Oracle Fusion Profile Management supports talent management business processes in these products:

- Oracle Fusion Performance Management
- Oracle Fusion Goal Management
- Oracle Fusion Talent Review

## Oracle Fusion Performance Management

Oracle Fusion Performance Management uses the rating models that you define in Profile Management to rate workers on their performance. When you define a performance document template, you can specify whether the ratings and comments from managers and workers are uploaded automatically to workers' profiles when the performance document is finalized. Instance qualifier sets distinguish the manager ratings from the workers' self ratings. Performance Management also uses competencies from the content library in performance documents.

## Oracle Fusion Goal Management

You can set up a content type relationship between the Goals content type and other content types, such as the Competencies content type and the Memberships content type. Using these relationships, you can then set up target outcomes for goals. Target outcomes are the content items within the content type that is related to the Goals content type. For example, if you set up a relationship between the Goals content type and the Competencies content type, workers can add a target outcome of a specific competency to their goals. In this case, the specific competency is the content item within the Competencies content type. When workers complete the goal, their profiles are updated to include the competency.

## Oracle Fusion Talent Review

Oracle Fusion Talent Review uses information from the Performance and Potential and Risk of Loss sections within a worker's profile to build the analytics that are part of the talent review process. These sections are defined as content types within the content library and included in the person profile type. When a talent review is complete, workers' profiles are updated automatically with the performance and potential ratings given during calibration discussions. Instance qualifier sets enable you to distinguish the talent review rating from ratings given by the worker's manager, a peer, or perhaps the worker's self-evaluation.

# Define Talent Profile Settings

## Value Sets: Explained

A value set is a set of valid values that you assign to a flexfield segment.

An end user enters a value into a flexfield segment while using the application. The flexfield validates the segment against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

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### Caution

Be sure changes to a shared value set are compatible with all flexfields segments using the value set.

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Defining value sets involves making decisions about the following.

- Validation
- Security
- Precision and scale
- Usage and deployment

### **Validation**

The following types of validation are available for value sets.

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set does not present a list of valid values to users.

You can build a tree structure from the values in an independent value set whose data type is character.

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### **Note**

Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

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For more information, see the Oracle Fusion Applications Extensibility Guide.

### **Security**

Value set security only works in conjunction with usage within flexfield segments. If a value set is used standalone, meaning outside a flexfield, value set security is not applied, but Oracle Fusion data security is enforced.

You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. If a value set is secured, every usage of it in any flexfield is secured. It is not possible to disable security for individual usages of the same value set.

Value set security applies to independent, dependent, or table-validated value sets.

Value set security applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security does not determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

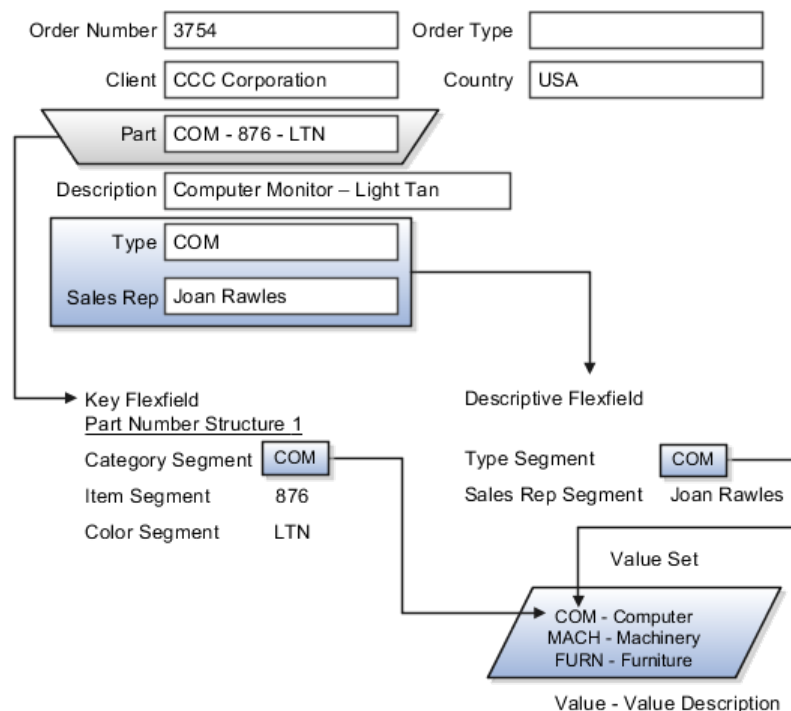
## Precision and Scale

For a value set with the data type Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

## Usage and Deployment

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.



For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

## Defining Value Sets: Critical Choices

Validation and usage of value sets determine where and how end users access valid values for attributes represented by flexfield segments.

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### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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### Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets. The data type must be character and the maximum length of the values being stored must not be larger than column length of the context.

### Format Only Validation

The format only validation type enables end users to enter any value, as long as it meets your specified formatting rules. That is, the value must not exceed the maximum length you define for your value set, and it must meet any format requirements for that value set.

For example, if the value set allows only numeric characters, your user could enter the value 456 (for a value set with maximum length of three or more), but could not enter the value ABC. A format only value set does not otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how many digits should follow the radix separator.

### Interdependent Value Sets

You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. You use a dependent value set to limit the list of values for a given segment based on the value that the end user has chosen for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of U.S. states with values such as CA, NY, and so on. Then you define a dependent value set of U.S. cities, with values such as San Francisco and Los Angeles that are valid for the independent value CA, and New York City and Albany that are valid for the

independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. End users do not need to choose a value for another segment first to have access to the subset value set.

## **Table Validation**

Typically, you use a table-validated set when the values you want to use are already maintained in an application table (for example, a table of vendor names). Table validation allows you to enable a segment to depend upon multiple prior segments in the same context or structure.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it does not have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

## **Range**

In the case of format, independent, or dependent value sets, you can specify a range to further limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100. If you use a table value set, you cannot reference flexfield segments in the WHERE clause of the value set . For example, the WHERE clause cannot reference a segment or a value set.

## **Security**

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

When you enable security on a table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set should not assume anything about the bind variables; it must assume the whole list of values is available and write the rule, for example, to allow x, or to allow y and z. By default in data security all values are denied, and show only rows to which access has been provided.

## **Maintenance**

There is no need to define or maintain values for a table-validated or subset value set, as the values are managed as part of the referenced table or independent value set, respectively.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select **Translatable**. This does not require you to provide translated values now, but you cannot change this option if you decide to provide them later.

For more information about defining value sets, see the Oracle Fusion Applications Extensibility Guide.

## Define Talent Profile Content

### Rating Models: Explained

Use rating models to rate workers on their performance and level of proficiency in the skills and qualities that are set up on the person profile. You can also use rating models to specify target proficiency levels for items on a model profile, so that the model profile can be compared to workers' profiles.

To rate workers on their performance and proficiency, you attach rating models to the content types that are included in the person profile, and then workers can be rated on the items within the type. For example, you can rate workers on the Communication content item within the Competencies content type.

For model profiles, you can specify target proficiency levels for items on the profile, so that the model profile can be compared to workers' profiles. Using the ratings, managers can compare a model profile to workers' profiles to determine the best person suited to fill a position. Workers can compare their profile to model profiles to identify other positions within the organization that they are suited for, or to identify gaps in skills that they need to fill before applying for other positions.

Rating models that measure workers' potential and the impact and risk of loss are also available.

Rating models can include some or all of the following components, depending on the use for the model:

- Rating levels
- Review points
- Rating categories
- Distributions

#### Rating Levels

Rating levels identify the qualitative values, such as 1, 2, 3, or 4, that you use to rate a worker.

For rating models that are used by Oracle Fusion Performance Management, the following applies:

- You must define numeric ratings for rating models that you use with performance documents that use calculated ratings.

- You must define rating levels using whole numbers, with the highest number indicating the best rating, for the Performance Management analytics to render correctly. Rating levels determine high and low ratings in the analytics.

### **Review Points**

Define review points for rating models that you use with performance documents that use the sum or band calculation method. The review points and point ranges that you define for the rating model are used to calculate ratings.

### **Rating Categories**

Rating categories enable you to group rating levels together for analysis tools used in the talent review process, such as the box chart that is used in the talent review process. You can group rating levels into categories such as low, medium, and high, and those categories then become the labels for the analytic. You should not change rating categories after setting them up, as the changes could affect the analytic.

### **Distributions**

Oracle Fusion Compensation Management and Oracle Fusion Performance Management both use rating model distributions to determine the targeted minimum and maximum percentage of workers that should be given each rating level. Compensation Management uses the distribution values that you set up directly on rating models. However, you can set up distributions at the performance template level for rating models that are used in Performance Management.

## **Content Types: Explained**

Content types are the skills, qualities, and qualifications that you want to track in talent profiles. The content library contains predefined content types such as competencies, languages, and degrees, but you can create new content types as needed. You can also create free-form content types.

Content types contain:

- Properties
- Relationships
- Subscribers

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#### **Note**

Free-form content types do not contain relationships or properties. You add properties for free-form content types when you add them to a profile type.

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#### **Properties**

For each content type, you define the properties that all content items of the content type can or must have. To define properties of the content type, you



select fields to be displayed when setting up the content items and the attributes of those fields. The attributes that you specify for each field are: field label, default value, whether the field is required, and whether the field is hidden, display-only, or editable. If the field is attached to a predefined list of values, you also specify the source of the list.

### **Relationships**

Specify where one content type is a parent of another, or where one content type supports another. Content items of content types with relationships inherit the relationship. You cannot create two kinds of relationships between two types or create a relationship between a type and itself. For example, content type A cannot be both the parent and child of content type B. A content type cannot be related to itself.

### **Subscribers**

Specify the subscriber codes of the applications or other Oracle Fusion products that use each content type. If you do not specify a subscriber code for the content type, you cannot view the content type in other applications. For example, if you add a new content type called Corporate Citizenship to the person profile type, you cannot view the content section for Corporate Citizenship in person profiles until you add the new content type to the HRMS content subscriber code.

## **Content Type Relationships: Examples**

Content relationships enable you to associate content items of related content types with each other. The following scenarios illustrate the use of content type relationships.

### **Tracking Product Expertise**

The Resource Manager component of Oracle Fusion Trading Community Model uses content type relationships to track the areas of expertise of workers. Using the predefined content type relationship where the Categories content type is a parent of Products, and Products is a parent of Components, resource managers can keep track of the categories, products, and components that are considered to be their areas of expertise for their resources.

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#### **Note**

Because these content types and relationships are applicable only to the Resource Manager component of Oracle Fusion Trading Community Model, this product is the only predefined content subscriber to these content types.

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### **Specifying Target Outcomes for Goals**

To help your workers manage their goals, you want them to associate their goals with target outcomes, which are content types such as Competencies and Memberships. To accomplish this, you can set up a relationship on the Competencies content type where Competencies is supported by Goals. Workers can then set up goals that have a specific competency as a target outcome.

## Content Items: Explained

Content items are the individual skills, qualities, and qualifications within the content types in the content library. For example, within the Competencies content type, communication is a content item. You can create content items to meet your business needs.

This topic discusses:

- Item properties
- Related content items
- Proficiency descriptions

### Item Properties

Content items inherit the fields and field properties that you define for the content type to which the item belongs. For example, one of the fields defined for the Memberships content type is ITEM\_DESCRIPTION field. The attributes of this field are set up so that the label is Description, the field is editable, and the field does not require an entry. When you set up a content item for the Memberships content type, you will see a field labeled Description, in which you can enter text to describe the agency, but the field will not be required.

### Related Content Items

If the content type for which you are creating an item has related content types, then you can enter the related content items for the item. For example, if you have a content type relationship where the Competencies content type is supported by the Goals content type, then on the content items for competencies, you can enter the related goals.

### Proficiency Descriptions

If the content item belongs to a content type that has a rating model defined for it, then you can either use the existing descriptions for the ratings within the model, or define descriptions for the ratings that are specific to the content item. When ratings are given for the content item, the descriptions defined for the item are used instead of those on the rating model.

## Creating Content Types and Content Items: Worked Example

This example demonstrates how to set up a new content type and content items to track the corporate citizenship activities of your workers so that you can rate them on their involvement in the organization. This example also demonstrates how to set up a rating model to be used with the content type and add the new content type to the person profile.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Can a predefined rating model be used to rate corporate citizenship?	No. The predefined rating models do not have relevant rating descriptions.

Should the content type be a free-form content type?	No. Content items are needed, and the content should be stored in the content library.
What field and properties should the content type contain?	<p>Add two fields to the content type:</p> <ul style="list-style-type: none"> <li>• ITEM_TEXT_20</li> <li>• RATING_MODEL_ID</li> </ul> <p>The ITEM_TEXT_20 field will have a label of <b>Comments</b>, and will be used to enter comments about the workers' corporate involvement. The RATING_MODEL_ID field will have a label of <b>Company Contribution</b> and will be used to attach the rating model for corporate citizenship to the content type.</p> <p>Both fields should require entry and should be editable.</p>
Does the content type need any content subscribers?	Yes. In order to be visible on the person profile, the new content type must be added to the HRMS content subscriber code.
What content items are needed to track the required information?	<ul style="list-style-type: none"> <li>• Corporate social responsibility</li> <li>• Corporate environmental responsibility</li> <li>• Corporate industrial citizenship</li> <li>• Corporate state citizenship</li> <li>• Corporate borough, council, or municipal citizenship</li> </ul>
When the content type is added to the person profile as a content section, what properties should the fields contain?	Both the <b>Comments</b> field and the <b>Company Contribution</b> fields should display in the detail view of the content section, they should be required, and they should be included in search results.

To track corporate citizenship for your workers, complete the following tasks:

- Create a rating model.
- Create a content type.
- Create content items.
- Add the content type to the person profile type.

## Creating a Rating Model

1. In the Setup and Maintenance work area, search for the **Manage Profile Rating Models** task and click **Go to Task**.
2. On the Manage Rating Models page, click **Create**.
3. On the Create Rating Model page, complete the following fields, as shown in this table. Use the default values except where indicated.

Field	Value
Code	Citizenship
Rating Name	Corporate Citizenship

Description	Rating model for corporate citizenship
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- On the Rating Levels tab, complete the following fields, as shown in this table.

Rating Level	Name	Short Description
1	Demonstrates limited or unused influence.	Limited
2	Demonstrates clear evidence of influence.	Clear Evidence
3	Provides a successful image of the company as socially responsible in limited environments.	Successful Image
4	Actively called upon to use influence as a corporate representative in selected environments.	Influential in Selected Environments
5	Demonstrates high level of influence and is able to operate effectively in all environments.	High Level of Influence

- Click **Save and Close**.

## Creating a Content Type

- In the Setup and Maintenance work area, search for the **Manage Profile Content Types** task and click **Go to Task**.
- On the Manage Content Types page, click **Create**.
- On the Create Content Type page, add a content type by completing the following fields, as shown in this table. Use the default values except where indicated.

Field	Value
Code	Citizenship
Name	Corporate Citizenship
Description	Ratings for corporate citizenship behaviors for workers.

- Set up the following field properties, as shown in this table. Use the default values except where indicated.

Field Name	Field Label	Required	Display Option
ITEM_TEXT_20	Comments	Selected	Editable
RATING_MODEL_	Company Contribution	Selected	Editable

5. Click **Save and Close**.
6. On the Manage Content Types page, select the **Corporate Citizenship** content type and click **Edit**.
7. On the Edit Content Type page, select the **Subscribers** tab.
8. On the Subscribers tab, click **Add**.
9. In the Subscriber Code field, select **HRMS**.
10. Click **Save and Close**.

## Creating Content Items

1. In the Setup and Maintenance work area, search for the **Manage Profile Content Items** task and click **Go to Task**.
2. On the Manage Content Items page, click **Create**.
3. In the Create Content Item dialog box, complete the following fields, as shown in this table.

Field	Value
Content Type	Corporate Citizenship
Content Item	Corporate Social Responsibility

4. On the Create Content Item: Corporate Social Responsibility page, select the **Corporate Citizenship** rating model in the **Rating** field.
5. Click **Save and Close**.
6. Repeat steps 2 through 5 to add content items for Corporate Environmental Responsibility, Corporate Industrial Citizenship, Corporate State Citizenship, and Corporate Borough, Council, or Municipal Citizenship.

## Adding the Corporate Citizenship Content Type to the Person Profile Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Types** task and click **Go to Task**.
2. On the Manage Profile Types page, locate the Person profile type and click **Edit**.
3. On the Edit Profile Type: Person page, select the **Content Sections** tab.
4. In the Content Sections region, click **Add Content Section**.
5. In the Content Types dialog box, select **Citizenship**.
6. In the Content Sections region, click **Citizenship**.
7. On the Content Section page, set up the following field properties, as shown in this table. Use the default values except where indicated.

Column Name	Display Flag	Required	Searchable
ITEM_TEXT240_1	Detail	Selected	Selected
RATING_LEVEL_I	Detail	Selected	Selected

8. On the Edit Profile Type: Person page, click **Save and Close**.
9. In the Content Access Section region, click **Add**.
10. In the Role field, select **Employee**.
11. Select the **Update** check box.
12. Click **Add**.
13. In the Role field, select **Manager**.
14. Click **OK**.
15. Click **Add**.
16. In the Role field, select **HR Specialist**.
17. Click **OK**.
18. On the Edit Profile Type: Person page, click **Save and Close**.

## Free-Form Content Types: Worked Example

This example demonstrates how to set up a free-form content type, add it to the HRMS content subscriber code, and then add the content type to the person profile type.

Your company wants to track the previous employment information for workers, including employer name, dates of employment, and job description. However, you do not want to set up and maintain content items for each employer, and this information applies only to person profiles. You decide to use a free-form content type for this information. You can set up the free-form content type with minimal information, and then when you add it to the person profile as a content section, you can define properties for employer name, dates of employment, and job description. Workers can complete their employment information on their profile based on how you set up the content section. The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Should the content type be a free-form content type?	Yes. Content items are not needed, and the content should not be stored in the content library.
Does the content type need any content subscribers?	Yes. In order to be visible on the person profile, the new content type must be added to the HRMS content subscriber code.
When the content type is added to the person profile as a content section, what fields are needed?	<p>To capture the previous employer, a text field is needed. To capture employment dates, two date fields are needed. To capture job description, another text field is needed. Therefore, the following fields must be added:</p> <ul style="list-style-type: none"> <li>• ITEM_TEXT30_1</li> <li>• ITEM_DATE_1</li> <li>• ITEM_DATE_2</li> <li>• ITEM_TEXT240_1</li> </ul>

What properties are needed for the ITEM_TEXT30_1 field?	<p>The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows:</p> <ul style="list-style-type: none"> <li>• <b>Label:</b> Previous Employer</li> <li>• <b>Display:</b> Detail (section should appear in detail view of profile)</li> </ul>
What properties are needed for the ITEM_DATE_1 field?	<p>The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows:</p> <ul style="list-style-type: none"> <li>• <b>Label:</b> From Date</li> <li>• <b>Display:</b> Detail</li> </ul>
What properties are needed for the ITEM_DATE_2 field?	<p>The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows:</p> <ul style="list-style-type: none"> <li>• <b>Label:</b> To Date</li> <li>• <b>Display:</b> Detail</li> </ul>
What properties are needed for the ITEM_TEXT240_1 field?	<p>The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows:</p> <ul style="list-style-type: none"> <li>• <b>Label:</b> Job Description</li> <li>• <b>Display:</b> Detail</li> </ul>
What role access should be granted for the content section?	Employees, managers, and HR specialists should all have access to update the section.

To set up a free-form content type to track previous employment information for workers, you must:

- Set up a free-form content type
- Add the free-form content type to the person profile type

## Setting Up a Free-Form Content Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Content Types** task and click **Go to Task**.
2. On the Manage Content Types page, click **Create**.
3. On the Create Content Type page, complete the following fields, as shown in this table.

Field	Value
<b>Code</b>	PREVEMP
<b>Name</b>	Previous Employment
<b>Description</b>	Track previous employment information for workers.

4. Select the **Free-Form Type** check box.

5. Click **Save and Close**.
6. On the Manage Content Types page, select the **Previous Employment** content type and click **Edit**.
7. On the Edit Content Type page, select the **Subscribers** tab.
8. On the Subscribers tab, select HRMS in the **Subscriber Code** field.
9. Click **Save and Close**.

## Adding the Free-Form Content Type to the Person Profile Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Types** task and click **Go to Task**.
2. On the Manage Profile Types page, select the **Person** profile type, and click **Edit**.
3. On the Edit Profile Type: Person page, select the **Content Sections** tab and click **Add Content Section**.
4. In the Content Types dialog box, select the **Previous Employment** content type.
5. In the Content Sections region, click the **Previous Employment** content type and enter the following properties on the Content Section page, as shown in this table.

Column Name	Label	Display
ITEM_TEXT30_1	Previous Employer	Detail
ITEM_DATE_1	From Date	Detail
ITEM_DATE_2	To Date	Detail
ITEM_TEXT240_1	Job Description	Detail

6. In the Content Access Section region, click **Add**.
7. In the Role field, select **Employee**.
8. Select the **Update** check box.
9. Click **Add**.
10. In the Role field, select **Manager**.
11. Click **OK**.
12. Click **Add**.
13. In the Role field, select **HR Specialist**.
14. Click **OK**.
15. On the Edit Profile Type: Person page, click **Save and Close**.

## FAQs for Define Talent Profile Content

### What's a rating category?

A label for a grouping of rating levels. Rating categories are used in talent management processes such as performance management and talent reviews to group ratings for analysis tools such as the performance and potential box chart.



### **Why are some content type relationships not editable?**

You can edit any content type relationships that you define. However, the relationships that are predefined cannot be changed.

### **How can I define a relationship between the Goals content type and other content types?**

Set up the relationship on the content type that you want to relate to goals using the relationship type: Is supported by. For example, if you want to define a relationship between the Goals content type and the Competencies content type, set up the relationship on the Competencies content type, instead of the Goals content type.

### **What's a free-form content type?**

Free-form content types enable you to capture information in a profile that you do not need to store in the content library. For example, you can set up a free-form content type to store information about the previous employment information for your workers.

A free-form content type contains only a code, name, and a description, and does not have any properties defined for it until you add it to a profile type. Free-form content types do not include any content items.

### **Why can't I change the relationship type of a content item?**

A content item's relationship type is derived from its content type, and you cannot change it. You can only change relationships at the content type level. You cannot change predefined relationships.

## **Define Talent Profiles**

### **Profile Types: Explained**

Profile types include person profile types and model profile types. The person profile type is the template that you use to create profiles of your workers. The person profile contains the skills, qualities, and qualifications that you want to track for your workers. The person profile type is predefined, and you can have only one. Model profile types are templates for workforce structures such as jobs and positions. Model profiles identify the targeted and required skills and qualifications for a job or position, and also identify work requirements, such as work schedule and travel frequency. You can set up multiple model profile types.

To define profile types, you first specify whether the profile type is a person or model profile. For model profiles, you also specify the workforce structures for which the model profile can be used. For example, if you specify that the model profile can be used for jobs and positions, then you can use the profile type to create both job and position profiles. To define the structure of the profile

type, you add one or more content sections using content types from the content library and free-form content types. Define the following for each content section:

- Instance qualifier sets
- Section properties
- Role access

### **Instance Qualifier Sets**

If you have defined instance qualifier sets for the content type, you select the instance qualifier set to use for the sections.

### **Section Properties**

The properties determine the fields and how they are displayed when you create profiles based on the type. For example, properties determine the label for the field, whether the field is required, and whether the field should be included in profile searches. For sections with content types from the content library, you can use the field properties as they have been defined in the content library, or add, remove, or change the properties to suit the content section. You define all of the properties for free-form content types.

### **Role Access**

You can specify the user roles, such as Employee or Manager, that can view the content section, and which user roles have access to update the section.

## **Adding Common Lookup Types to a Content Section Property: Explained**

When defining content sections for a profile type, you can associate common lookup types with a content section property, enabling you to provide a list of values for the content section property. For example, you can add a list of industries to a content section called Industry Expertise. You can use existing common lookup types, or create your own. Common lookups can be associated with these content section properties: ITEM\_TEXT30\_6 through ITEM\_TEXT30\_15.

---

### **Note**

This functionality does not apply to these content section properties when they are associated with the following content sections: Career Preferences, Potential, Risk, Advancement Readiness, Career Statement, Talent Score, Performance Rating, and Work Requirements.

---

## **Adding a Common Lookup to a Content Section Property: Example**

This example illustrates how to use common lookup types to create a list of values for a content section property.

## Development Readiness

The Human Resources (HR) department at InFusion Corporation wants to track development readiness for employees using the person profile. They would also like to indicate whether a worker is a candidate for serving as a mentor to another worker.

### Values for Development Readiness

The HR department has decided on three possible levels for a worker's development readiness:

- 1 to 2 years
- 3 to 5 years
- Ready Now

To indicate whether a worker is a candidate for being a mentor, they want three choices:

- Yes
- No
- Maybe

### Analysis

InFusion analyzes the existing content types in the content library, and decides that none of the content types works. They will create a new content type called Development Readiness. This will be a free-form content type, as no content items are needed, and the information does not need to be stored in the content library.

Next, they analyze the existing common lookups, and determine that they can use an existing lookup type, HRT\_READINESS but add new lookup codes and meanings to suit their needs. For the indicator for mentorship, they must create a new common lookup.

After creating the content type and lookup and changing the lookup codes for HRT\_READINESS, they will add the content type as a content section to the person profile. Adding the content section to the person profile enables human resource specialists and managers to add the section to workers' profiles so that they can rate them on their readiness level and ability to be a mentor.

---

#### Note

You can attach lookup values to only these content section properties: ITEM\_TEXT30\_6 through ITEM\_TEXT30\_15.

---

To track development readiness for workers, InFusion must complete the following setup:

1. Using the Manage Common Lookups task in the Setup and Maintenance work area, locate the HRT\_READINESS lookup type and add codes for **1 to 2 years**, **3 to 4 years**, and **Ready Now**.

2. Using the Manage Common Lookups task, create a new common lookup called HRT\_MENTOR, and add the three values of **Yes**, **No**, and **Maybe**.
3. Using the Manage Content Types task in the Setup and Maintenance work area, create a new free-form content type called Development Readiness. Add HRMS and TM as the content subscribers.
4. Using the Manage Profile Types task in the Setup and Maintenance work area, select the Person profile type and add Development Readiness to it.
5. Using the Manage Profile Types task, select the Development Readiness content section to access the Content Section page.

Set up the content section by adding two properties as described in this table.

Property	Label	Display	Value Set Name
ITEM_TEXT30_6	Development Readiness	Summary	HRT_READINESS
ITEM_TEXT30_7	Potential Mentor	Summary	HRT_MENTOR

6. In the Content Section Access region on the Content Section page, add the HR Specialist and Manager roles and select the option for each role to be able to edit the content section. Do not add the Employee role.

Human resource specialists and managers can then access worker profiles and add the Development Readiness content section to the profiles.

## Instance Qualifier Sets: Explained

An instance qualifier set is a group of codes that you use to uniquely identify different occurrences of the same profile item within the Competency content type. Instance qualifiers typically identify the role of the person who edited a competency. For example, if a worker, the worker's peer, and the worker's manager all enter a rating for a competency on the worker's profile, instance qualifier sets uniquely identify each instance, or, the rating given by each different role. Uniquely identifying different instances of competencies enables you to specify which instance is used when you view or compare profiles.

Each instance qualifier contains a code and a description, which indicate the role or the application that updated the competency. For example, P is the code that is used when an employee's peer rates the employee and T is used for the rating that results from the talent review meeting. You can use the predefined codes and descriptions, or you can create your own.

In addition to the code and description, each instance qualifier has the following properties:

- Priority
- Employer and manager views
- Search ability
- Default instance qualifier for employer and manager

## **Priority**

Priority determines the order in which different instances of a competency are displayed, and also determines which instance to use when searching and comparing profiles. The lowest number indicates the highest priority.

## **Employer and Manager Views**

Employer and manager views determine which instances are visible to employees and to managers.

## **Search Ability**

You can specify whether items that have been assigned the instance qualifier code should be included in profile searches. For example, you might not want the ratings for competencies given by peers to display when other workers are searching person profiles.

## **Default Instance Qualifier for Employee and Manager**

You can specify the default instance qualifier to use when managers and employees update a competency. Each time an employee or manager updates a competency, the record is assigned the instance qualifier code that is identified as the employee or manager default code.

# **Define Questionnaires**

## **Questionnaires: Explained**

You can create questionnaires to add to gather feedback from respondents using question and responses you configure.

Questionnaires enable you to:

- Capture information from respondents
- Use templates to maintain consistency and configure specific audiences
- Specify the questionnaire presentation
- Configure question and responses in the question library
- Control access

## **Capturing Information from Respondents**

You can create questionnaires to gather information from, and about, employees in applications that are set up to accommodate questionnaires. For example, you can use questionnaires to collect participant feedback in a performance evaluation, or rate worker potential in an assessment for a talent review.

## **Using Templates to Maintain Consistency and Configuring for Specific Audiences**

You must create templates to use as the basis for questionnaires. With templates, you can maintain consistency for questionnaires, and configure them for:

- Specific applications
- General audiences, such as an entire organization, or all internal customers
- Specific purposes, such as providing feedback for performance evaluation periods
- Targeted audiences, such as particular roles (managers or peers, for example) or organizations

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**Note**

Questionnaires used for talent reviews, called potential assessments, are predefined and do not require a template.

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### **Specifying the Questionnaire Presentation**

You control how the questionnaire appears in the subscriber application. Specify whether the questionnaire appears on one page or across multiple pages, for example. You can add sections to separate questions by type or other classification and specify which questions are required to be answered.

### **Configuring Questions and Responses in the Question Library**

You configure questions and responses in the question library to add to the questionnaire. You can create four types of questions: text field, single select choice, multiple select choice, and no response. For each question type you also configure specific responses, and select the presentation method to determine how the response appears. For example, for the single select question type, you can specify either that the possible responses appear in a single select choice list or as radio buttons.

### **Controlling Access**

Set privacy options to control access to the questionnaire or template. You can permit either anyone with access to a questionnaire or template to edit it, or only the specified owner.

## **Creating a Questionnaire: Points to Consider**

To create a questionnaire, you must first create the template. You can edit the configuration settings in the questionnaire that were inherited from the template.

When creating a questionnaire template or questionnaire:

- Determine the intended audience for the questionnaire
- Format basic information
- Add and format content

When you conclude setting up the questionnaire or template, use the **Preview** button on the Review page to view and confirm the configuration.

## Determining the Intended Audience for the Questionnaire

You set up questionnaires to apply for particular subscriber applications, and you can target a general and widespread population, or specific audiences. For example, you can create questionnaires for:

- All participants who provide feedback for all performance documents, or to all performance documents for a specific evaluation period
- A more targeted audience, such as for a specific role like manager, peer, or internal customer

## Formatting Basic Information

Specify the basic information for the questionnaire template or questionnaire, to make searching and categorization easier and control access.

### ID and Folder

An ID containing only numbers is generated automatically for each questionnaire template and questionnaire. However, you can change it to any unique combination of numbers or characters you need to make it easier to search for or identify. You must also provide a name for the questionnaire or template.

Select the folder in which to store the questionnaires (not available for templates). You can create the folders to categorize questionnaires and to enhance searching for them.

### Owner Name

To control access to the questionnaire or template, select the name of an owner whom you want to have access, and set the **Privacy** setting to **Private**. Only the owner can then edit the questionnaire or template. If you set the **Privacy** setting to **Public**, anyone with permission to access the questionnaire or template can edit it.

### Subscriber

In the template, select the application that will use the questionnaire. For example, to add a questionnaire to performance documents, select **Performance 360**. The template can be used only for the subscriber you select.

## Instruction Text and Attachments

Instruction text appears at the top of the first page of the questionnaire. You can add additional introductory text for each section you create. You can also add to a section a No Response question type that contains instruction text, and requires no response.

You can add file or URL attachments to a questionnaire. The attachment appears as a link at the top of the questionnaire, and below the instruction text if it is present.

## Adding and Formatting Content

You control how the various sections in the template appear by specifying sequence, appearance, and formatting for questions and responses.

## Questionnaire Content: Explained

You specify the content that is contained in a questionnaire and how to display it.

In the questionnaire template, and the questionnaires created from it, you can:

- Specify section order and presentation
- Specify question and response order
- Specify response types
- Add and format sections
- Add and format questions and responses

### Specifying Section Order and Presentation

If you add multiple sections to the questionnaire, then you can specify the section order as **Sequential** so that the sections appear in the order you specify, or **Random** so that the order changes whenever the questionnaire is accessed.

This table lists how each section presentation selection affects a questionnaire.

Section Presentation	Effect
No sections	One required section appears that contains all questions.
Stack regions	Sections are arranged from top to bottom.

### Specifying Question and Response Order

Select **Vertical** for the question and response order in the template to maintain the order you specify in the actual questionnaire. When you select **Random**, the order for the questions or responses changes whenever the questionnaire is accessed. This prevents respondents from using an answer key for the questions or responses. Responses can vary only for single and multiple choice question types.

For the template, you can also specify whether to allow changes to formatting options, sections, or questions and responses. If you select the check box for any of these, that aspect of a questionnaire created from the template can be edited.

### Specifying Response Types

In the template, you select the response types that can appear in questionnaires created from the template. Only questions of the types associated with the response types you select are eligible to appear in the questionnaire.



For example, if you select options for multiple choice selection, such as **Check multiple choices** and **Multiple choices from list**, but do not select any for single select choices, such as **Single choice from list** or **Radio button list**, you can add multiple choice questions, but not single choice, to the questionnaire. If, however, you select **Check multiple choices** and **Single choice from list**, but not **Multiple choices from list** or **Radio button list**, you can add both multiple choice and single choice questions, but are restricted to the selected response types for each question type.

## Adding and Formatting Sections

Add sections, and then add questions to the sections. At least one section is required for a questionnaire. You can use sections to group questions by type, category, or any other classification.

Select **Additional Questions** to create a section that will include only questions added in the subscriber application by people with the roles that have permission to edit questionnaires. For performance documents, for example, that could be managers or workers. For talent reviews, a human resource (HR) specialist who is a meeting facilitator has that role.

Select **Vertical** to display the questions within the section vertically in the order you specify, or **Random** to change the order whenever the questionnaire is accessed.

You also specify whether the questions in the section are required so that respondents must answer them.

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### Note

The requirement to answer all required questions is also determined by the subscriber application.

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When you select **New Page**, the section appears on a separate page than the other sections. When the number of questions on a page or section exceeds the setting you specified in the **Maximum Number of Questions per Page** field, the questions that exceed the specified number appear on the next page. If you enter 6 as the maximum number, for example, but the section contains 10 questions, the section continues on a new page.

## Adding, Creating, and Formatting Questions and Responses

You can add questions to the section from the question library, or create new questions. You can add or remove questions, and drag and drop them to the desired order in the section. The order is maintained in the questionnaire if the question order is set to **Vertical** for the section. If you create a new question, you specify the folder to store the question. Questions stored in question folders will be available to use in other questionnaires.

If you create new questions, you also configure the responses. Questions you add from the question library already have existing responses. However, you can change the response presentation. For example, if the question is a single select type associated with a single choice from list response type, you can change the

response type to radio buttons. You can add questions of any type to a section. If the section is not set to required, then you can specify which individual questions are required to be answered in the questionnaire by respondents.

## Questionnaire Question and Response Types: Explained

You can create questions from any of four question types to add to the question library, and ultimately, to questionnaires. Along with the questions, you also specify the responses and how the responses are presented in the questionnaire. You can specify whether to allow respondents to add attachments to the response.

The available question types are:

- Text
- Single choice
- Multiple choice
- No response

### Text

For the text question type, a respondent enters a response in a text field. Answers can be any text, such as single words or sentences, or characters. You specify a maximum number of characters the response can contain, and you can optionally specify a minimum number the respondent must enter.

For the response text field, you specify to utilize either plain text, or rich text, to let respondents format their responses using bold, underline, and other characteristics.

### Single Choice

With the single choice question type, you create a question and respondents select one response from a list you provide. You select whether to display the responses as either a single select choice list, or radio buttons.

Respondents can select from either responses that you create, or from a rating model. When you associate a rating model with the response type, the possible responses are drawn automatically from the values of the rating model. For example, if the rating model contains five rating levels, the short description and the name associated with the level for all levels, are added directly as responses from which the respondent can choose.

### Multiple Choice

Use the multiple choice question type to create a question and permit respondents to provide one or more answers. Create the responses and specify whether the responses are presented as check boxes or a choice list. You can optionally set both a minimum and maximum number of required responses.

## No Response

Use the no response question type to add a question with no accompanying responses. You can use it to add additional instructions or information in the section, or let respondents add attachments as a response.

## FAQs for Define Questionnaires

### What happens if I edit a questionnaire that is in use?

You are prompted to either create a new version of the questionnaire, or update the existing questionnaire. When you create a new version of the questionnaire you can configure it as you would any newly-created questionnaire. When you update an existing questionnaire, the new version replaces the older one. Respondents will access the latest version wherever it appears.

If no one has submitted a response to the questionnaire yet, you can add new sections and questions, and specify those that are required. If at least one respondent has submitted a response, you can add new sections and questions, but you cannot specify that either are required.

## FAQs for Define Social Networking

### How can I enable social networking features?

Set the Social Networking Features Enabled profile option to "Y" on the Manage Social Networking Profile Option Values page. If you enable this profile option, users can access the following features:

- Kudos
- Message board
- Activity stream
- Connections
- Personal status

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#### Note

If you disable social networking features, users can continue to access the bookmarks they created from the Bookmarks region in the Activities and Interests card on the My Portrait tab. Also, the spaces that users are a member of continue to appear in the Spaces region.

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# Common Applications Configuration: Define Security for Human Capital Management

## Role Provisioning and Deprovisioning: Explained

A user's access to data and functions depends on the user's roles: users have one or more roles that enable them to perform the tasks required by their jobs or positions. Roles must be provisioned to users; otherwise, users have no access to data or functions.

### Role Provisioning Methods

Roles can be provisioned to users:

- Automatically
- Manually, using delegated administration:
  - Users such as line managers and human resource specialists 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 identify when a user becomes eligible for a role.

Oracle Identity Management (OIM) can be configured to notify users when their roles change; notifications are not issued by default.

### Role Types

Data roles, abstract roles, and job roles can be provisioned to users. Roles available for provisioning include predefined roles, HCM data roles, and roles created using OIM.

### Automatic Role Provisioning

A role is provisioned to a user automatically when at least one of the user's assignments satisfies the conditions specified in the relevant role-mapping

definition. The provisioning occurs when the assignment is either created or updated. For example, when a person is promoted to a management position, the line manager role is provisioned automatically to the person if an appropriate role mapping exists. Any change to a person's assignment causes the person's automatically provisioned roles to be reviewed and updated as necessary.

## **Role Deprovisioning**

Automatically provisioned roles are deprovisioned automatically as soon as a user no longer satisfies the role-mapping conditions. For example, a line manager role that is provisioned to a user automatically is deprovisioned automatically when the user ceases to be a line manager.

Automatically provisioned roles can be deprovisioned manually at any time.

Manually provisioned roles are deprovisioned automatically only when all of the user's work relationships are terminated; in all other circumstances, users retain manually provisioned roles until they are deprovisioned manually.

## **Changes to Assignment Managers**

When a person's line manager is changed, the roles of both new and previous line managers are updated as necessary. For example, if the person's new line manager now satisfies the conditions in the role mapping for the line manager role, and the role is one that is eligible for autoprovisioning, then that role is provisioned automatically to the new line manager. Similarly, if the previous line manager no longer satisfies the conditions for the line manager role, then that role is deprovisioned automatically.

## **Roles at Termination**

When a work relationship is terminated, all automatically provisioned roles for which the user does not qualify in other work relationships are deprovisioned automatically. Manually provisioned roles are deprovisioned automatically only if the user has no other work relationships; otherwise, the user retains all manually provisioned roles until they are deprovisioned manually.

Automatic deprovisioning can occur either as soon as the termination is submitted or approved or on the day after the termination date. The user who is terminating the work relationship selects the appropriate deprovisioning date.

Role mappings can provision roles to users automatically at termination. For example, the locally defined roles Retiree and Beneficiary could be provisioned to users at termination based on assignment status and person type values.

If a termination is later reversed, roles that were deprovisioned automatically at termination are reinstated and post-termination roles are deprovisioned automatically.

## **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 changes are identified and role provisioning occurs on the day the changes take effect, not when the change is entered. The process Send Pending LDAP Requests identifies future-

dated transactions and manages role provisioning and deprovisioning at the appropriate time. Note that such role-provisioning changes are effective as of the system date; therefore, a delay of up to 24 hours may occur before users in other time zones acquire the access for which they now qualify.

## Role Mappings: Explained

User access to data and functions is determined by abstract, job, and data roles, which are provisioned to users either automatically or manually. To enable a role to be provisioned to users, you define a relationship, known as a mapping, between the role and a set of conditions, typically assignment attributes such as department, job, and system person type. In a role mapping, you can select any role stored in the Lightweight Directory Access Protocol (LDAP) directory, including Oracle Fusion Applications predefined roles, roles created in Oracle Identity Management (OIM), and HCM data roles.

The role mapping can support:

- Automatic provisioning of roles to users
- Manual provisioning of roles to users
- Role requests from users
- Immediate provisioning of roles

### Automatic Provisioning of Roles to Users

A role is provisioned to a user automatically if:

- At least one of the user's assignments satisfies all conditions associated with the role in the role mapping.
- You select the **Autoprovision** option for the role in the role mapping.

For example, for the HCM data role Sales Manager Finance Department, you could select the **Autoprovision** option and specify the following conditions.

Attribute	Value
Department	Finance Department
Job	Sales Manager
Assignment Status	Active

The HCM data role Sales Manager Finance Department is provisioned automatically to users with at least one assignment that satisfies all of these conditions.

Automatic role provisioning occurs as soon as the user is confirmed to satisfy the role-mapping conditions, which can be when the user's assignment is either created or updated. The provisioning process also removes automatically provisioned roles from users who no longer satisfy the role-mapping conditions.

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#### Note

The automatic provisioning of roles to users is effectively a request to OIM to provision the role. OIM may reject the request if it violates segregation-of-duties rules or fails a custom OIM approval process.

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## Manual Provisioning of Roles to Users

Users such as human resource (HR) specialists and line managers can provision roles manually to other users; you create a role mapping to identify roles that can be provisioned in this way.

Users can provision a role to other users if:

- At least one of the assignments of the user who is provisioning the role (for example, the line manager) satisfies all conditions associated with the role mapping.
- You select the **Requestable** option for the role in the role mapping.

For example, for the HCM data role Quality Assurance Team Leader, you could select the **Requestable** option and specify the following conditions.

Attribute	Value
Manager with Reports	Yes
Assignment Status	Active

Any user with at least one assignment that satisfies both of these conditions can provision the role Quality Assurance Team Leader manually to other users, who are typically direct and indirect reports.

If the user's assignment subsequently changes, there is no automatic effect on roles provisioned by this user to others; they retain manually provisioned roles until either all of their work relationships are terminated or the roles are manually deprovisioned.

## Role Requests from Users

Users can request roles when reviewing their own account information; you create a role mapping to identify roles that users can request for themselves.

Users can request a role if:

- At least one of their own assignments satisfies all conditions associated with the role mapping.
- You select the **Self-requestable** option for the role in the role mapping.

For example, for the Expenses Reporting role you could select the **Self-requestable** option and specify the following conditions.

Attribute	Value
Department	ABC Department
System Person Type	Employee
Assignment Status	Active



Any user with at least one assignment that satisfies all of these conditions can request the role. The user acquires the role either immediately or, if approval is required, once the request is approved. Self-requested roles are classified as manually provisioned.

If the user's assignment subsequently changes, there is no automatic effect on self-requested roles. Users retain manually provisioned roles until either all of their work relationships are terminated or the roles are manually deprovisioned.

## Immediate Provisioning of Roles

When you create a role mapping, you can apply autoprovisioning from the role mapping itself.

In this case, all assignments and role mappings in the enterprise are reviewed. Roles are:

- Provisioned immediately to all users who do not currently have roles for which they are eligible
- Deprovisioned immediately from users who are no longer eligible for roles that they currently have

Immediate autoprovisioning from the role mapping enables bulk automatic provisioning of roles to a group of users who are identified by the role-mapping conditions. For example, if you create a new department after a merger, you can provision relevant roles to all users in the new department by applying autoprovisioning immediately.

To provision roles immediately to a single user, the user's line manager or an HR specialist can autoprovision roles from that user's account.

## Role-Mapping Names

The names of role mappings must be unique in the enterprise. You are recommended to devise a naming scheme that reveals the scope of each role mapping. For example:

Name	Description
Autoprovisioned Roles Sales Department	Mapping includes all roles provisioned automatically to anyone in the sales department
Benefits Specialist Autoprovisioned	Mapping defines the conditions for autoprovisioning the Benefits Specialist role
Line Manager Requestable Roles	Mapping includes all roles that a line manager can provision manually to direct and indirect reports

## Role Mappings: Examples

Roles must be provisioned to users explicitly, either automatically or manually; no role is provisioned to a user by default. This topic provides some examples of typical role mappings to support automatic and manual role provisioning.

## Creating a Role Mapping for Employees

You want all employees in your enterprise to have the Employee role automatically when they are hired. In addition, employees must be able to request the Expenses Reporting role when they need to claim expenses. Few employees will need this role, so you decide not to provision it automatically to all employees.

You create a role mapping called All Employees and enter the following conditions.

Attribute	Value
System Person Type	Employee
Assignment Status	Active

In the role mapping you include the:

- Employee role, and select the **Autoprovision** option
- Expenses Reporting role, and select the **Self-requestable** option

You could create a similar role mapping for contingent workers called All Contingent Workers, where you would set the system person type to contingent worker.

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### Note

If the Employee and Contingent Worker roles are provisioned automatically, pending workers acquire them when their periods of employment or placements start. If they need roles before then, you create a separate role mapping for the pending worker system person type.

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## Creating a Role Mapping for Line Managers

Any type of worker can be a line manager in the sales business unit. You create a role mapping called Line Manager Sales BU and enter the following conditions.

Attribute	Value
Business Unit	Sales
Assignment Status	Active
Manager with Reports	Yes

You include the Line Manager role and select the **Autoprovision** option. This role mapping ensures that the Line Manager role is provisioned automatically to any worker with at least one assignment that matches the role-mapping conditions.

In the same role mapping, you could include roles that line managers in this business unit can provision manually to other users by selecting the roles and marking them as requestable. Similarly, if line managers can request roles for themselves, you could include those in the same role mapping and mark them as self-requestable.

## Creating a Role Mapping for Retirees

Retirees in your enterprise need a limited amount of system access to manage their retirement accounts. You create a role mapping called All Retirees and enter the following conditions.

Attribute	Value
System Person Type	Retiree
Assignment Status	Inactive

You include the locally defined role Retiree in the role mapping and select the **Autoprovision** option. When at least one of a worker's assignments satisfies the role-mapping conditions, the Retiree role is provisioned to that worker automatically.

## Creating a Role Mapping for Sales Managers

Grade 6 sales managers in the sales department need the Sales Manager role. In addition, sales managers need to be able to provision the Sales Associate role to other workers. You create a role mapping called Sales Managers Sales Department and enter the following conditions.

Attribute	Value
Department	Sales
Job	Sales manager
Grade	6
Assignment Status	Active

In the role mapping, you include the:

- Sales Manager role, and select the **Autoprovision** option
- Sales Associate role, and select the **Requestable** option

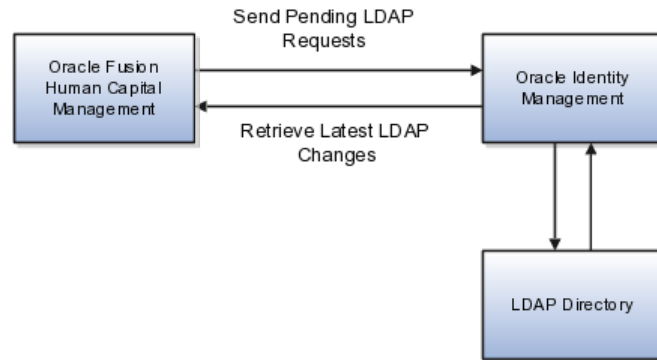
## Synchronization of User and Role Information with Oracle Identity Management: How It Is Processed

Oracle Identity Management (OIM) maintains Lightweight Directory Access Protocol (LDAP) user accounts for users of Oracle Fusion Applications. OIM also stores the definitions of abstract, job, and data roles, and holds information about roles provisioned to users.

Most changes to user and role information are shared automatically and instantly by Oracle Fusion Human Capital Management (HCM) and OIM. In addition, two scheduled processes, Send Pending LDAP Requests and Retrieve Latest LDAP Changes, manage information exchange between Oracle Fusion HCM and OIM in some circumstances.

- Send Pending LDAP Requests sends to OIM bulk requests and future-dated requests that are now active.

- Retrieve Latest LDAP Changes requests from OIM changes that may not have arrived because of a failure or error, for example.



## Settings That Affect Synchronization of User and Role Information

You are recommended to run the Send Pending LDAP Requests process at least daily to ensure that future-dated changes are identified and processed as soon as they take effect. Retrieve Latest LDAP Changes can also run daily, or less frequently if you prefer. For example, if you know that a failure has occurred between OIM and Oracle Fusion HCM, then you can run Retrieve Latest LDAP Changes to ensure that user and role information is synchronized.

When processing bulk requests, the batch size that you specify for the Send Pending LDAP Requests process is the number of requests to be processed in a single batch. For example, if 400 requests are to be processed and you specify a batch size of 25, then 16 batches of requests will be created and processed in parallel.

## How Synchronization of User and Role Information Is Managed

Synchronization of most user and role information between Oracle Fusion HCM and OIM occurs automatically. However, when you run Send Pending LDAP Requests to process future-dated or bulk requests, it sends to OIM:

- Requests to create, suspend, and re-enable user accounts.

When a person record is created in Oracle Fusion HCM, OIM creates a user account automatically.

When all of a person's work relationships are terminated and the person has no roles, the person's user account is suspended automatically. If the person is subsequently rehired, the suspended account is automatically re-enabled.

- Role provisioning and role deprovisioning changes for individual users.
- Changes to relevant person attributes for individual users.
- New and updated information about HCM data roles, which are created in Oracle Fusion HCM.

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### Note

It is possible to disable, for the enterprise, most default processing of Send Pending LDAP Requests. In particular, you can prevent the:

- Default creation of user accounts
- Automatic provisioning and deprovisioning of roles
- Automatic sharing of changes to person attributes

To control the processing of Send Pending LDAP Requests, you perform the task Manage Enterprise HCM Information.

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The process Retrieve Latest LDAP Changes sends to Oracle Fusion HCM:

- Names of new user accounts.

When a person record is created in Oracle Fusion HCM, OIM creates a user account automatically and returns:

- The user account name and password. If the user's primary work e-mail address was entered when the person record was created, then the user account name and password are returned to the user; otherwise, this information is returned to the primary work e-mail address of the user's line manager. (No notification is sent if the user has no line manager or the line manager has no primary work e-mail address.)
- The globally unique identifier (GUID) associated with the LDAP directory user account, which is added automatically to the person record.
- Latest information about abstract, job, and data roles.

OIM stores latest information about all abstract, job, and data roles, including HCM data roles. Oracle Fusion HCM maintains a local copy of all role names and types so that lists of roles presented in role mappings and elsewhere are up to date.

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#### Note

New HCM data roles are available only when OIM has returned information about those roles to Oracle Fusion HCM.

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- Work e-mail addresses, if OIM owns the work e-mail address.

If automatic maintenance of user accounts is enabled for the enterprise (which it is by default), then the values of the following person attributes are sent to OIM automatically whenever a person record is created and whenever any of these attributes is subsequently updated.

- Person number
- System person type from the person's primary assignment
- The GUID of the manager of the person's primary assignment
- Work e-mail address, if Oracle Fusion HCM owns the work e-mail address
- Work phone number

- Work FAX number
- Both local and global versions of the person's display name
- Global versions of the following name components:
  - First name
  - Middle name
  - Last name
  - Name suffix
- Both the formatted work-location address and the following components of the work-location address from the person's primary assignment:
  - Address line 1
  - City
  - State
  - Postal code
  - Country code
- The person's preferred language
- The person's user name, if this value itself has changed

Equivalent information for trading community parties is also shared with OIM.

No personally identifiable information (PII) is sent from Oracle Fusion HCM to OIM.

## Defining Security After Enterprise Setup: Points to Consider

After the implementation user has set up the enterprise, further security administration depends on the requirements of your enterprise.

The Define Security activity within the Information Technology (IT) Management business process includes the following tasks.

- Import Worker Users
- Import Partner Users
- Manage Job Roles
- Manage Duties
- Manage Application Access Controls

If no legacy users, user accounts, roles, and role memberships are available in the Lightweight Directory Access Protocol (LDAP) store, and no legacy workers are available in Human Resources (HR), the implementation user sets up new users and user accounts and provisions them with roles available in the Oracle Fusion Applications reference implementation.

If no legacy identities (workers, suppliers, customers) exist to represent people in your enterprise, implementation users can create new identities in Human Capital Management (HCM), Supplier Portal, and Customer Relationship Management (CRM) Self Service, respectively, and associate them with users.

## **Before Importing Users**

Oracle Identity Management (OIM) handles importing users.

If legacy employees, contingent workers, and their assignments exist, the HCM Application Administrator imports these definitions by performing the Load Batch Data task. If user and role provisioning rules have been defined, the Load Batch Data process automatically creates user and role provisioning requests as the workers are created.

Once the enterprise is set up, performing the Load Batch Data task populates the enterprise with HR workers in records linked by global user ID (GUID) to corresponding user accounts in the LDAP store. If no user accounts exist in the LDAP store, the Load Batch Data task results in new user accounts being created. Worker email addresses as an alternate input for the Load Batch Data task triggers a search of the LDAP for user GUIDs, which may perform more slowly than entering user names.

In the security reference implementation, the HCM Application Administrator job role hierarchy includes the HCM Batch Data Loading Duty role, which is entitled to import worker identities. This entitlement provides the access necessary to perform the Load Batch Data task in HCM.

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### **Note**

The Import Person and Organization task in the Define Trading Community Import activity imports the following resources, creates users, and links the resources to users for use in CRM.

- Internal employees
- Contingent workers
- External partner contacts
- Partner companies
- Legal entities
- Customers
- Consumers

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If role provisioning rules have been defined, the Import Person and Organization task automatically provisions role requests as the users are created.

## **Import Users**

If legacy users (identities) and user accounts exist outside the LDAP store that is being used by the Oracle Fusion Applications installation, the IT security manager has the option to import these definitions to the LDAP store by performing the Import Worker Users and Import Partner Users tasks.

If no legacy users or user accounts can be imported or exist in an LDAP repository accessible to Oracle Identity Management (OIM), the IT security manager creates users manually in OIM or uses the Load Batch Data task to create users from imported HR workers.

Once users exist, their access to Oracle Fusion Applications is dependent on the roles provisioned to them in OIM or Human Capital Management. Use the Manage HCM Role Provisioning Rules task to define rules that determine what roles are provisioned to users.

Importing user identities from other applications, including other Oracle Applications product lines, is either a data migration or manual task. Migrating data from other Oracle Applications includes user data. For more information about importing users, see the Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager.

In the security reference implementation, the IT Security Manager job role hierarchy includes the HCM Batch Data Loading Duty and the Partner Account Administration Duty. These duty roles provide entitlement to import or create users. The entitlement Load Batch Data provides the access necessary to perform the Import Worker Users task in OIM. The entitlement Import Partner entitlement provides the access necessary to perform the Import Partner Users task in OIM.

## **Manage Job Roles**

Job and abstract roles are managed in OIM. This task includes creating and modifying job and abstract roles, but not managing role hierarchies of duties for the jobs.

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### **Note**

Manage Job Roles does not include provisioning job roles to users. Provisioning users is done in OIM, HCM, CRM or Oracle Fusion Supplier Portal.

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Roles control access to application functions and data. Various types of roles identify the functions performed by users.

The Oracle Fusion Applications security reference implementation provides predefined job and abstract roles. In some cases, the jobs defined in your enterprise may differ from the predefined job roles in the security reference implementation. The predefined roles and role hierarchies in Oracle Fusion may require changes or your enterprise may require you to create new roles. For example, you need a job role for a petty cash administrator, in addition to an accounts payable manager. The security reference implementation includes a predefined Accounts Payable Manager, and you can create a petty cash administrator role to extend the reference implementation.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Enterprise Role Management Duty role, which is entitled to manage job and abstract roles (the entitlement is Manage Enterprise Role). This entitlement provides the access necessary to perform the Manage Job Roles task in OIM.



## Manage Duties

A person with a job role must be able to perform certain duties. In the Oracle Fusion Applications security reference implementation, enterprise roles inherit duties through a role hierarchy. Each duty corresponds to a duty role. Duty roles specify the duties performed within applications and define the function and data access granted to the enterprise roles that inherit the duty roles.

Managing duties includes assigning duties to job and abstract roles in a role hierarchy using Authorization Policy Manager (APM). If your enterprise needs users to perform some actions in applications coexistent with Oracle Fusion applications, you may wish to remove the duty roles that enable those actions. For details about which duty roles are specific to the products in an offering, see the Oracle Fusion Applications Security Reference Manual for each offering.

OIM stores the role hierarchy and the spanning of roles across multiple pillars or logical partitions of applications.

In cases where your enterprise needs to provide access to custom functions, it may be necessary to create or modify the duty roles of the reference implementation.

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### Tip

As a security guideline, use only the predefined duty roles, unless you have added new applications functions. The predefined duty roles fully represent the functions and data that must be accessed by application users and contain all appropriate entitlement. The predefined duty roles are inherently without segregation of duty violations of the constraints used by the Application Access Controls Governor.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage duty roles (the entitlement is Manage Application Role). This entitlement provides the access necessary to perform the Manage Duties task in APM.

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### Note

Product family administrators are not entitled to create role hierarchies or manage duty roles and must work with the IT security manager to make changes such as localizing a duty role to change a role hierarchy. Setup for localizations is documented in HCM documentation.

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## Manage Application Access Controls

Prevent or limit the business activities that a single person may initiate or validate by managing segregation of duties policies in the Application Access Controls Governor (AACG) .

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### Note

In AACG, segregation of duties policies are called access controls or segregation of duties controls.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Segregation of Duties Policy Management Duty role, which is entitled to manage segregation of duties policies (the entitlement is Manage Segregation of Duties Policy). This entitlement provides the access necessary to perform the Manage Application Access Controls task in AACG.

## Defining Data Security After Enterprise Setup: Points to Consider

After the implementation user has set up the enterprise, further security administration depends on the requirements of your enterprise.

The Define Data Security activity within the Information Technology (IT) Management business process includes the following tasks.

- Manage Data Access Sets
- Manage Segment Security
- Manage Role Templates
- Manage Data Security Policies
- Manage Encryption Keys

These tasks address data security administration. For information on using the user interface pages for setting up and managing data security, see the Oracle Fusion Middleware Administrator's Guide for Authorization Policy Manager (Oracle Fusion Applications edition).

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### Note

The Manage Data Role and Security Profiles task, and all other HCM security profile setup tasks are documented in Human Capital Management (HCM) documentation.

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### Manage Data Access Sets

Data access sets define a set of access privileges to one or more ledgers or ledger sets.

The information on ledgers that are attached to data access sets are secured by function security. Users must have access to the segment values associated with the data access sets to access the corresponding GL account.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Data Access Administration Duty role, which is entitled to manage data access sets (the entitlement is Define General Ledger Data Access Set). This entitlement provides the access necessary to perform the Manage Data Access Sets task in General Ledger.

### Manage Segment Security

Balancing or management segment values can secure data within a ledger.

Segment values are stored in GL\_ACCESS\_SET\_ASSIGNMENTS and secured by restrictions, such as Exclude, on parameters that control the set of values that a user can use during data entry.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Key Flexfield Administration Duty role, which is entitled to manage application key flexfields (the entitlement is Manage Application Key Flexfield). This entitlement provides the access necessary to perform the Manage Segment Security task in General Ledger.

## **Manage Role Templates**

Data role templates automatically create or update data roles based on dimensions such as business unit. As an enterprise expands, data role templates trigger replication of roles for added dimensions. For example, when creating a new business unit, a data role template generates a new Accounts Payables Manager data role based on the Financials Common Module Template for Business Unit Security data role template.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage data role templates (the entitlement is Manage Role Template). This entitlement provides the access necessary to perform the Manage Role Templates task in APM.

## **Manage Data Security Policies**

Data security grants provisioned to roles are data security policies. The security reference implementation provides a comprehensive set of predefined data security policies and predetermined data security policies based on data role templates.

Data security policies are available for review in Authorization Policy Manager (APM). Data security policies are implemented by grants stored in Oracle Fusion Data Security (FND\_GRANTS).

Data security policies secure the database resources of an enterprise. Database resources are predefined applications data objects and should not be changed. However, for cases where custom database resources must be secured objects, the IT security manager is entitled to manage database resources and create new data security policies.

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### **Warning**

Review but do not modify HCM data security policies in APM except as a custom implementation. Use the HCM Manage Data Role And Security Profiles task to generate the necessary data security policies and data roles.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage data security policies (the entitlement is Manage Data Security Policy). This entitlement provides the access necessary to perform the Manage Data Security Policies task in APM.

## Manage Encryption Keys

Create or edit encryption keys held in Oracle Wallet to secure Personally Identifiable Information (PII) attributes. This task is only available when Payments is implemented.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Payments Data Security Administration Duty role, which is entitled to manage encryption keys that secure PII (the entitlement is Manage Wallet). This entitlement provides the access necessary to perform the Manage Encryptions Keys task in Payments.

## Securing Identities and Users: Points To Consider

Identity covers all aspects of an entity's existence within the contexts in which it is used. The identity of an enterprise user consists of HR attributes, roles, resources, and relationships.

HR attributes include identifying information about a user that is relatively static and well understood, such as first and last name, title, and job function.

Roles are part of a user's identity and define the user's purpose and responsibilities.

Within identity management, resources define what a user can and does do. In an enterprise, this typically translates into what resources a user has access to, what privileges they have on that resource, and what they have been doing on that resource. Resources can be application accounts or physical devices such as laptops or access cards. The enterprise owns the resources, secures them, and manages access to the resources by managing the user's identity and access.

Relationships establish the portion of user identities that involve organizational transactions such as approvals.

An Oracle Fusion Applications user and corresponding identity are usually created in a single transaction, such as when a worker is created in Human Resources (HR). That transaction automatically triggers provisioning requests for the user based on role provisioning rules.

User accounts for some identities that are not employees, such as partner contacts, may be created in a later transaction using an identity that is already created in the identity store. Supplier contacts are created in the Supplier Model, not HR.

### Stores

Various locations store identity and user data.

Identity data consists of the following.

- HR person records
- Oracle Fusion Trading Community Model party records

In Oracle Fusion Applications, identities and users correspond one to one, but not all identities correspond to a user, and not all users are provisioned with an identity. Some identities stored in HR and Trading Community Model may not be provisioned to user accounts and therefore are not synchronized with Oracle Identity Management (OIM). For example, a contact for a prospective customer is an identity in Trading Community Model but may not be provisioned with a user account in OIM. Some users stored in the Lightweight Directory Access Protocol (LDAP) store may not be provisioned with identities. For example, system user accounts used to run Web services to integrate third party services with Oracle Fusion Applications are not associated with a person record in HR or Trading Community Model. Some identifying credentials such as name, department, e-mail address, manager, and location are stored with user data in the LDAP store.

## Importing Users

You can import users or user attributes in bulk from existing legacy identity and user stores.

Your tasks may include the following.

- Create users in bulk
- Update specific attributes for all users, such as postal code
- Link users to HR or Trading Community Model persons
- Monitor progress of the import process
- Correct errors & re-import
- Export users in bulk
- Import and export users using a standard plain text data interchange format like Lightweight Data Interchange Format (LDIF)

You can reserve a specific user name not currently in use for use in the future, or release a reserved username from the reservation list and make it available for use. Between a user registration request and approved registration, Oracle Fusion Applications holds the requested user name on the reservation list, and releases the name if an error occurs in the self-registration process or the request is rejected. Self-registration processes check the reservation list for user name availability and suggest alternative names.

## Provisioning Events

New identities, such as new hires, trigger user and role provisioning events. In addition to user creation tasks, other tasks, such as Promote Worker or Transfer Worker, result in role provisioning and recalculation based on role provisioning rules.

When an identity's attributes change, you may need to provision the user with different roles. Role assignments may be based on job codes, and a promotion triggers role provisioning changes. Even if the change in the identities attributes requires no role assignment change, such as with a name change, OIM synchronizes the corresponding user information in the LDAP store.

Deactivating or terminating an identity triggers revocation of some roles to end all assignments, but may provision new roles needed for activities, such as a pay stub review. If the corresponding user for the identity was provisioned with a buyer role, terminating the identity causes the user's buyer record in Procurement to be disabled, just as the record was created when the user was first provisioned with the buyer role.

## **Notifications and Audits**

Oracle Fusion Applications provides mechanisms for notifying and auditing requests or changes affecting identities and users.

Oracle Fusion Applications notifies requestors, approvers, and beneficiaries when a user account or role is provisioned. For example, when an anonymous user registers as a business-to-customer (B2C) user, the B2C user must be notified of the registration activation steps, user account, password and so on once the approver (if applicable) has approved the request and the user is registered in the system.

User ID and GUID attributes are available in Oracle Fusion Applications session information for retrieving authenticated user and identity data.

End user auditing data is stored in database WHO columns and used for the following activities.

- Setting up sign-in audit
- Using the application monitor
- Notifying of unsuccessful sign ins
- Sign-in audit reports

You can conduct real time audits that instantiate a runtime session and impersonate the target user (with the proxy feature) to test what a user has access to under various conditions such as inside or outside firewall and authentication level.

For information on configuring audit policies and the audit store, see the Oracle Fusion Applications Administrator's Guide.

## **Delegated Administration**

You can designate local administrators as delegated administrators to manage a subset of users and roles.

Delegated administrators can be internal or external persons who are provisioned with a role that authorizes them to handle provisioning events for a subset of users and roles.

For example, internal delegated administrators could be designated to manage users and roles at the division or department level. External delegated administrators could be designated to manage users and roles in an external organization such as a primary supplier contact managing secondary users within that supplier organization.

You can also define delegated administration policies based on roles. You authorize users provisioned with specific roles named in the policy to request a

subset of roles for themselves if needed, such as authorizing a subset of roles for a subset of people. For example, the policy permits a manager of an Accounts Payables department to approve a check run administrator role for one of their subordinates, but prohibits the delegated administrator from provisioning a budget approver role to the subordinate.

## **Credentials**

You activate or change credentials on users by managing them in Oracle Identity Management (OIM)

Applications themselves must be credentialed to access one another.

Oracle Fusion Applications distinguishes between user identities and application identities (APPID). Predefined application identities serve to authorize jobs and transactions that require higher privileges than users.

For example, a payroll manager may submit a payroll run. The payroll application may need access to the employee's taxpayer ID to print the payslip. However, the payroll manager is not authorized to view taxpayer IDs in the user interface as they are considered personally identifiable information (PII).

Calling applications use application identities (APPID) to enable the flow of transaction control as it moves across trust boundaries. For example, a user in the Distributed Order Orchestration product may release an order for shipping. The code that runs the Pick Notes is in a different policy store than the code that releases the product for shipment. When the pick note printing program is invoked it is the Oracle Fusion Distributed Order Orchestration Application Development Framework (ADF) that is invoking the program and not the end user.

# **Define Data Security for Human Capital Management**

## **HCM Data Roles: Explained**

HCM data roles, like all Oracle Fusion Applications data roles, define data security policies: they enable users to perform a set of tasks, using identified menus, menu items, and pages in application user interfaces, on a specified set of data within those user interfaces. Because data roles are specific to the enterprise, no predefined HCM data roles exist.

### **How HCM Data Roles Differ from Other Data Roles**

HCM data roles differ from other data roles in the following ways:

- You create and maintain HCM data roles outside Oracle Identity Management (OIM) and the Oracle Fusion Middleware Authorization Policy Manager (APM), and they are not based on data role templates.

Although HCM data roles are visible in the Oracle Fusion Middleware APM, they must not be maintained there.

- A single HCM data role can enable access to data of multiple types.

You identify the data that users can access in HCM security profiles. You can create security profiles for the person, organization, position, country, legislative data group (LDG), document type, payroll, payroll flow, and workforce business process objects.

## Selecting the Job Role

Each HCM data role is associated with a single job role, which you select from the list of enterprise roles. The HCM securing objects that the selected role needs to access are identified automatically, and the appropriate types of security profile are displayed. For example, if you select the job role human resource analyst, users with that job role need to access managed person, public person, organization, position, LDG, and document type data; therefore, security profiles for those object types must be included in the HCM data role. The security profile types that appear in the HCM data role vary according to the data requirements of the selected job role.

If you select a job role that requires no access to HCM data secured by security profiles, you cannot create an HCM data role.

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### Note

If you create custom job roles in OIM, you must add them to a locally defined role category that ends with "Job Roles"; otherwise, they do not appear in the list of job roles when you create an HCM data role. Do not add custom job roles to the predefined role category HCM - Job Roles.

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## Creating or Selecting the Security Profiles

You can either create new security profiles or use existing security profiles. For each object type, you can include only one security profile in an HCM data role.

## Users with Multiple HCM Data Roles

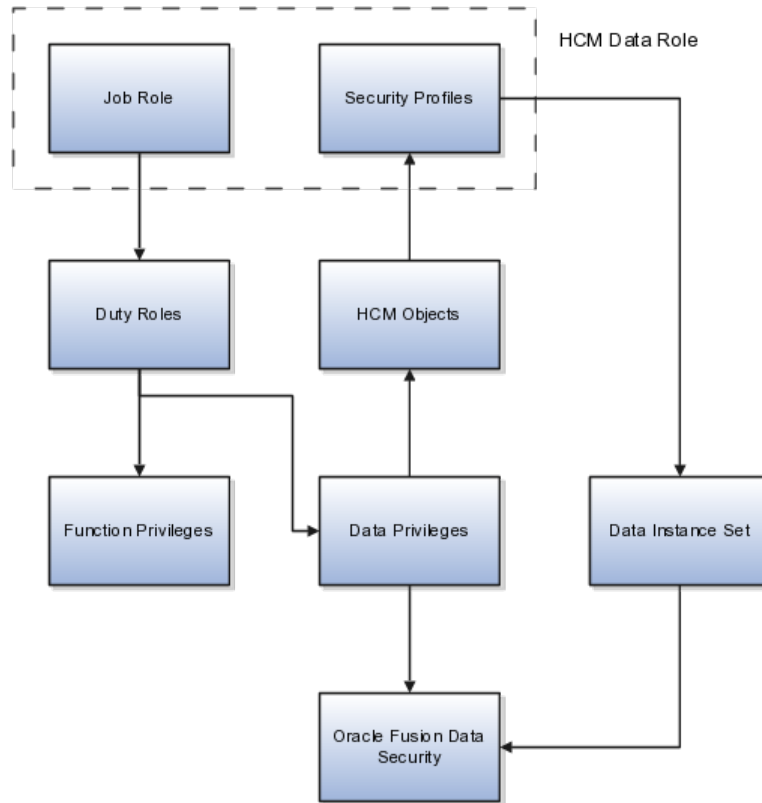
When users have multiple HCM data roles, the data security policies arising from each role remain separate. For example, being able to promote or terminate workers in the purchasing department in one HCM data role and view contact details of all workers in the sales department in another HCM data role does not enable a user to promote or terminate workers in the sales department.

## Components of the HCM Data Role

The following figure summarizes how the components of the HCM data role contribute to Oracle Fusion Data Security for the data role. Oracle Fusion Data Security comprises the data security policies for data roles that are generated automatically when data roles are created.

The job role that you select in the HCM data role inherits multiple duty roles. Each duty role has one or more function privileges and related data privileges, from which the relevant HCM objects are identified. The specific instances of the objects required by this HCM data role are identified in security profiles and stored in a data instance set. Data security policy data is created automatically in Oracle Fusion Data Security when you create the data role.





For example, the human resource specialist job role inherits the employee hire and worker promotion duty roles, among many others. The inherited duty roles provide both function privileges, such as Hire Employee, Rehire Employee, and Promote Workers, and data privileges to HCM objects, such as person and assignment. The specific instances of those objects required by this HCM data role, such as people with assignments in a specified legal employer and department, are identified in security profiles.

## HCM Securing and Secured Objects: Explained

Human capital management (HCM) objects to which access is secured by HCM data roles are identified as either securing objects or secured objects.

### HCM Securing Objects

The person, organization, position, country, legislative data group (LDG), document type, payroll, payroll flow, and workforce business process objects are referred to as HCM securing objects. An HCM securing object secures access to both its own data and data in child or related objects. For example, access to a specified organization can also allow access to associated model profiles. Instances of HCM securing objects that users can access are identified in security profiles. The type of security profile that you use to identify instances of an HCM securing object is fixed; for example, you identify person records in a person security profile and position records in a position security profile.

Whether a particular user can access all of the secured data in practice is controlled by data security policies: for example, a compensation manager

may be able to enter salary details for a specified set of person records, while a benefits manager may be able only to view salary details in the same set of person records.

### **HCM Secured Objects**

An HCM secured object is a business object to which access is controlled by its relationship with a securing object. For example, salary details are secured objects that are secured by the person securing object.

Securing objects can also be secured objects. For example, access to person records can be controlled by person data, such as person type or name range, or by other securing objects, such as organization or position, or both.

## **HCM Security Profiles: Explained**

A security profile defines the criteria that identify instances of a human capital management (HCM) object. For example, a person security profile defines the criteria that identify one or more person records, and a position security profile defines the criteria that identify one or more positions. When you include a security profile in an HCM data role and provision the data role to a user, that user can access the data instances identified in the security profile. The type of access available to the user (for example whether the user can edit or simply view the data) depends on the job role identified in the HCM data role.

### **HCM Object Types**

You can create security profiles for the following HCM object types:

- Person
  - Managed person
  - Public person
- Organization
- Position
- Legislative data group (LDG)
- Country
- Document type
- Payroll
- Payroll flow
- Workforce business process

All security profile definitions for these HCM objects are eventually visible in the Oracle Fusion Middleware Authorization Policy Manager (APM). The name of the security profile's data instance set in the Oracle Fusion Middleware APM is derived from the name of the security profile and the relevant object type. For example, if the security profile name is Manager Hierarchy, then the data instance set for the object PER\_ALL\_PEOPLE\_F is HCM:PER:PER\_ALL\_PEOPLE\_F:Manager Hierarchy.

You must use the Oracle Fusion Human Capital Management interfaces, which are designed for ease of use and access, to create and maintain security profiles; do not use the Oracle Fusion Middleware APM to maintain security profiles for these HCM objects.

### Security Criteria in HCM Security Profiles

In any HCM security profile, you specify the criteria that identify data instances of the relevant type. For example, in an organization security profile, you can identify organizations by organization hierarchy, by organization classification, or by listing organizations to include in or exclude from the security profile. All of the criteria in an HCM security profile apply when the data instance set is defined; for example, if you identify organizations by both organization hierarchy and organization classification, then both sets of criteria apply, and only those organizations that satisfy all criteria belong to the data instance set.

### Predefined HCM Security Profiles

The following HCM security profiles are predefined:

Security Profile Name	HCM Security Profile Type	Description
View All People	Person	Identifies all person records in the enterprise
View Own Record	Person	Identifies the signed-on user's own person record and the person records of that user's contacts
View Manager Hierarchy	Person	Identifies the signed-on user's line manager hierarchy
View All Workers	Person	Identifies the person records of all people who have a work relationship in the enterprise
View All Organizations	Organization	Identifies all organizations in the enterprise
View All Positions	Position	Identifies all positions in the enterprise
View All Legislative Data Groups	LDG	Identifies all LDGs in the enterprise
View All Countries	Country	Identifies all countries in the FND_TERRITORIES table
View All Document Types	Document Type	Identifies all document types in the enterprise
View All Payrolls	Payroll	Identifies all payrolls in the enterprise
View All Flows	Payroll Flow	Identifies all payroll flows in the enterprise
View All Workforce Business Processes	Workforce Business Process	Identifies all registered workforce business processes in the enterprise

You can include the predefined security profiles in any HCM data role, but you cannot edit them. Note also that the **View all** option is disabled in any security profile that you create; this restriction exists because predefined security profiles exist for this requirement.

## Creating Security Profiles

You can create security profiles either individually or as part of the process of creating an HCM data role. If you have standard requirements, it may be more efficient to create the security profiles individually and include them in appropriate HCM data roles.

## Reusability and Inheritance of Security Profiles

Regardless of how you create them, all security profiles are reusable; they do not belong to particular HCM data roles, and you can include them in any HCM data role for which they define an appropriate data instance set.

You can include security profiles in other security profiles. For example, you can include an organization security profile:

- In a person security profile, to secure person records by department, business unit, or legal employer
- In a position security profile, to secure positions by department or business unit

Therefore, one security profile can inherit the data instance set defined by another.

# Creating HCM Data Roles and Security Profiles: Points to Consider

Planning your use of HCM data roles and security profiles before you start creating them will enable you to minimize maintenance and ease the introduction of HCM data roles and security profiles in your enterprise.

## Identifying Standard Requirements

In any enterprise, standard requirements for data access are likely to exist. For example, multiple HCM data roles may need access to all person records in a specific legal employer. If you create a person security profile that includes all person records in that legal employer, then you can include the security profile in as many HCM data roles as necessary. This approach simplifies the management of HCM data roles and security profiles, and may also prevent duplicate security profiles being created unnecessarily.

## Naming HCM Data Roles and Security Profiles

You are recommended to define and use a naming scheme for HCM data roles and security profiles.

Ideally, a security profile name identifies clearly the scope of the resulting data instance set so that, when creating or updating an HCM data role, users can confidently select an appropriate HCM security profile. For example, the person security profile name All Employees Sales Department conveys clearly that the security profile identifies all employees in the sales department.

The name of an HCM data role usefully includes both the name of the inherited job role and the data role scope. For example, the HCM data role Human Resource Analyst Finance Division identifies both the job role and the

organization within which the role operates. HCM data role names must be less than 55 characters.

### **Planning Data Access for Each HCM Data Role**

An HCM data role can include only one security profile of each type. For example, you can include one organization security profile, one managed person security profile, and one public person security profile. Therefore, you must plan the data-access requirements of any HCM data role to ensure that each security profile identifies all required data instances. For example, if a user needs to select legal employers, business units, and departments, then organizations of all three types must be identified by the organization security profile that you include in the HCM data role.

### **Providing Access to All Instances of an Object**

To provide access to all instances of an HCM object, use the appropriate predefined security profile. For example, to provide access to all person records in the enterprise, use the predefined security profile View All People.

## **Creating Organization Security Profiles: Examples**

An organization security profile identifies organizations by at least one of organization hierarchy, organization classification, and organization list.

These examples show some typical requirements for organization security profiles.

### **HR IT Administrator Who Maintains Organizations**

The HR IT administrator maintains the definitions of all types of organizations for the enterprise. You want the HR IT administrator's access to reflect any changes to the hierarchy without needing to update the security profile. Therefore, you:

- Secure by organization hierarchy.
- Select a generic organization hierarchy, so that the security profile data instance set includes organizations of all classifications.
- Identify by name the top organization in the hierarchy that will be included in the data instance set of organizations. The HR IT administrator's needs are fixed; therefore, the top organization is unlikely to vary with the user's assignment.

If you secured by organization classification, you would need to update the security profile if organizations of different classifications were added to the user's responsibilities. Similarly, if you listed organizations to include in or exclude from the instance set, you would need to maintain the list as the enterprise's organization hierarchy evolved.

### **Human Resource Specialist Who Manages Person and Assignment Records in a Legal Employer**

The human resource (HR) specialist needs access to lists of legal employers, business units, departments, reporting establishments, and disability

organizations while creating and updating person records and assignments. To identify the organizations that the user can see in such lists, you:

- Secure by organization hierarchy.
- Select a generic organization hierarchy, because the HR specialist needs access to more than one type of organization.
- Allow the top organization in the hierarchy to be the department from the user's assignment. This selection allows you to provision the HCM data role in which this organization security profile is included to multiple HR specialists who may be employed in different parts of the enterprise.

If the generic hierarchy contains organizations of types that the HR specialist does not need to access, you can additionally identify the classifications to be included. If additional organizations of the included classifications are later added to the hierarchy, you do not need to update the security profile. You would need to update the security profile only if the user became responsible for organizations of other classifications in the same HCM data role.

The HR specialist also needs access to person records, and one of the ways in which those records can be secured is by organization. If the set of organizations is the same, you can reuse this organization security profile to secure the person records in a person security profile.

## Creating Person Security Profiles: Examples

A person security profile identifies person and assignment records by at least one of the following types of criteria: person type, manager hierarchy, workforce structure, global name range, and custom criteria.

These examples show typical requirements for person security profiles.

### Human Resource Specialists for a Legal Employer

Human resource (HR) specialists for the ABC legal employer need access to the person and assignment records of anyone who has a work relationship with the legal employer. You create a person security profile named All ABC Workers. In the security profile, you:

- Secure by person type and select the system person types employee, contingent worker, nonworker, and pending worker.
- Set the access level to restricted for the selected person types.
- Secure by legal employer, and select an existing organization security profile that identifies legal employer ABC and any subordinate organizations. The person security profile All ABC Workers inherits the organization security profile's data instance set.

The data instance set from the person security profile All ABC Workers comprises all employees, contingent workers, nonworkers, and pending workers in legal employer ABC.

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#### Note

The data instance set from a person security profile also includes any person who has shared his or her information with the signed-on user. The only

exception to this rule occurs for person security profiles in which **Access to Own Record** is the only security criterion.

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If you do not:

- Secure by person type, then the data instance set includes all person types, including those without work relationships, such as emergency contacts
- Set the access level for these person types to restricted, then other criteria in the security profile are ignored; therefore, the data instance set includes all workers in the enterprise rather than in legal employer ABC

As you set the access level separately for each person type, you could set it to restricted for some person types and unrestricted for others. The other criteria in the security profile would apply only to the person types with restricted access.

You can include the security profile All ABC Workers in an HCM data role and provision the data role to any HR specialist in legal employer ABC.

### Enterprise Line Managers

You want to enable line managers in your enterprise to access the person and assignment records of people who report to them directly from at least one assignment. You also want line managers to have access to the person and assignment records of people who report to the assignments that they manage directly. Your management hierarchy comprises eight management levels, and you want to limit the number of levels of the hierarchy that each manager can access.

You create a person security profile named Line Manager Three Levels. In the security profile, you:

- Secure by manager hierarchy, and set the **Person or Assignment Level** option to **Assignment**.
- Set **Maximum Levels in Hierarchy** to 3, to ensure that the data instance set for any line manager comprises no more than 3 levels of the manager hierarchy.
- Set **Manager Type** to **Line Manager**.

You can include this security profile in an HCM data role and provision that data role to any line manager in the enterprise.

### Payroll Administrators for a Subset of Employees

Payroll administrators in Ireland need to be able to access the person and assignment records of employees. In Ireland, your enterprise has a large number of employees and several payroll administrators. You decide that some payroll administrators will manage the records of people whose names are in the range A through M and some will manage those in the range N through Z. Therefore, you create two person security profiles, Ireland Employees A to M and Ireland Employees N to Z.

- In both security profiles, you
  - Secure by person type, select the employee system person type, and set the access level to restricted.

- Secure by legal employer and select an existing organization security profile that identifies legal employers in Ireland.
- In the person security profile Ireland Employees A to M, you secure by global name range and set the range to A through M.
- In the person security profile Ireland Employees N to Z, you secure by global name range and set the range to N through Z.

You include each person security profile in a separate HCM data role, which you provision to appropriate payroll administrators. If necessary, you can provision both HCM data roles to a single payroll administrator. In this case, the payroll administrator would have access to employees in Ireland whose names are in the range A through Z.

## Creating Position Security Profiles: Examples

Some users need to maintain position definitions for part or all of the enterprise. Other users need to access lists of positions when creating user assignments, for example. The users' access requirements vary, but in both cases you identify the positions that users can access in a position security profile.

These scenarios show typical uses of position security profiles.

### Human Resource Specialist Managing Position Definitions

The human resource (HR) specialist creates and maintains position definitions for the enterprise, with a few exceptions. To identify the set of positions that HR specialists can manage, you:

- Secure by position hierarchy, select the enterprise position hierarchy tree, and identify the top position for which the HR specialist is responsible. You include the top position in the hierarchy.
- Secure by position list, and identify by name the few positions for which the HR specialist is not responsible. You exclude these positions from the position security profile data instance set.

You can include this security profile in the relevant HCM data role and provision it to any HR specialist in the enterprise who has responsibility for these position definitions.

### Line Manager Hiring Workers

Line managers in your business unit can hire employees or add contingent workers when the positions of those new workers are below the managers' own positions in the position hierarchy. To identify the set of positions that line managers can allocate to new workers, you secure by position hierarchy, select the relevant position tree, and use the position from the user's assignment as the top position. You do not include the top position in the hierarchy.

You can include this position security profile in the relevant HCM data role and provision it to any line manager in your business unit.

### Securing Person Records by Position

Some senior managers in your enterprise can access the person records of workers who occupy positions below them in the position hierarchy; therefore,



you secure access to those person records by position in the person security profile. To identify the relevant positions, you create a position security profile in which you secure by position hierarchy, identify the senior manager position as the top position, and do not include it in the hierarchy. This selection ensures that senior managers do not have access to the person records of other senior managers.

## Creating Document Type Security Profiles: Examples

Some users need to manage document types for the enterprise. Others need to be able to manage the documents associated with the person records to which they have access. For example, workers need to be able to manage their own documents. The users' access requirements vary, but in both cases you identify the document types that users can access in a document type security profile.

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### Note

Document type security profiles secure access to locally defined document types only. They do not secure access to standard predefined document types, such as visas, work permits, and driver's licenses. Access to person records provides access to the standard predefined document types.

---

These scenarios show typical uses of document type security profiles.

### Workers Managing Their Own Documents

Workers can manage their own documents from their portraits. If you create an HCM data role for a worker's job role, for example, you can include the predefined document type security profile View All Document Types, which includes all locally defined document types. Alternatively, you can create a document type security profile that includes specified document types only. In the document type security profile, you list document types either to include in the profile or to exclude from it. For example, if you have defined the document type Medical Record that you want only human resource (HR) specialists to manage, you could create a document type security profile for workers that excludes medical records. Workers would continue to have access to all other document types in the enterprise.

### HR Specialists Managing Document Types

HR specialists who are responsible for managing the enterprise document types need to access all document types. You can provide this access by including the predefined document type security profile View All Document Types in the HCM data role that you provision to HR specialists who have this responsibility. This security profile also ensures that HR specialists can view and update all document information in the person records that they manage.

## Securing Organizations: Points to Consider

Some users maintain organization definitions for part or all of the enterprise, and some users need to access lists of organizations while performing other tasks, such as creating assignments. While the access requirements in each case are very different (and depend on the job role inherited by the user's HCM data role)

for both types of user you identify relevant organizations in an organization security profile.

### Organizations With Multiple Classifications

Organizations may have more than one classification. For example, a department may also be classified as a legal employer. An organization is included in an organization security profile data instance set if it satisfies any one of the security profile's classification criteria. For example, if you secure by department hierarchy only, a department that is also a legal employer appears in the organization security profile data instance set because it is a department. However, users of this organization security profile will not be able to access the organization as a legal employer.

### Selecting the Top Organization in an Organization Hierarchy

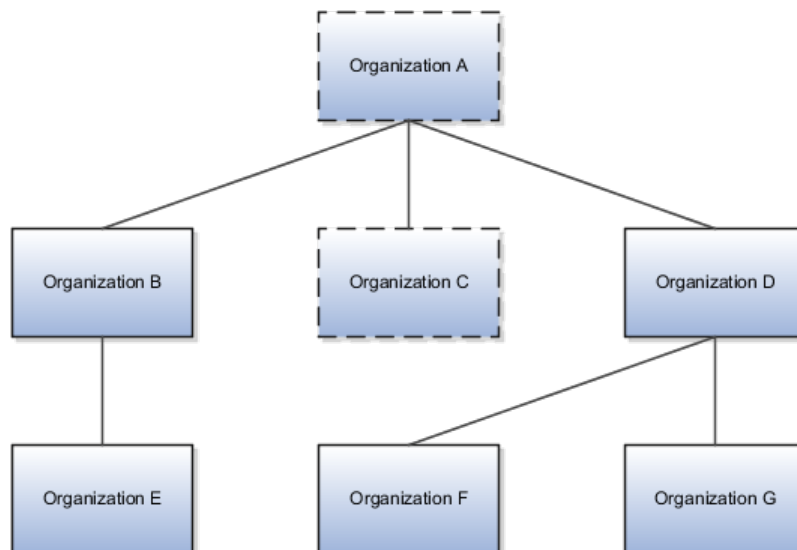
If you select a named organization as the top organization in an organization hierarchy, you must ensure that the organization is and remains valid. No validation of the selection occurs, because changes to the organization hierarchy occur independently of the organization security profile.

### Users With Multiple Assignments

When you select the department from the user's assignment as the top organization in an organization hierarchy, multiple top organizations may exist when the user has multiple assignments. In this case, all organizations from the relevant subhierarchies of the selected organization hierarchy belong to the organization security profile data instance set.

The following figure illustrates the effects of this option when the user has multiple assignments.

The user has two assignments, one in organization B and one in organization D, which belong to the same organization hierarchy. The top organizations are organizations B and D, and the user's data instance set of organizations therefore includes organizations B, E, D, F, and G.



## Securing Person Records Using Custom Criteria: Examples

You can secure person records by person type, manager hierarchy, workforce structures, and global name range. You can also specify custom criteria, in the form of SQL statements, in addition to or in place of the standard criteria. The custom criteria can include any statement where the predicate restricts by PERSON\_ID or ASSIGNMENT\_ID: the custom predicate must include either &TABLE\_ALIAS.PERSON\_ID OR &TABLE\_ALIAS.ASSIGNMENT\_ID as a restricting column in the custom criteria.

The following scenario illustrates how to use custom criteria in a person security profile.

### Identifying Persons Born Before a Specified Date

The person security profile data instance set must include employees in a single legal employer who were born before 01 January, 1990. You secure person records by:

- Person type, where you select the employee system person type and set the access level to restricted
- Legal employer, where you select an organization security profile that identifies the relevant legal employer and its subordinate organizations

You also secure by custom criteria, and enter the following statement:

```
&TABLE_ALIAS.PERSON_ID IN (SELECT PERSON_ID FROM PER_PERSONS  
WHERE DATE_OF_BIRTH < TO_DATE('01-JAN-1990', 'DD-MON-YYYY'))
```

## Securing Person Records by Manager Hierarchy: Points to Consider

When you identify a set of person records by manager hierarchy, the person records that occur in the data instance set for the signed-on manager depend on how you specify the manager hierarchy in the person security profile.

You can select one of:

- Person-level manager hierarchy
- Assignment-level manager hierarchy

In both cases, the selection controls access to person records. Having access to a person's record enables the manager to access all of the person's assignments: you cannot enable the manager to access particular assignments.

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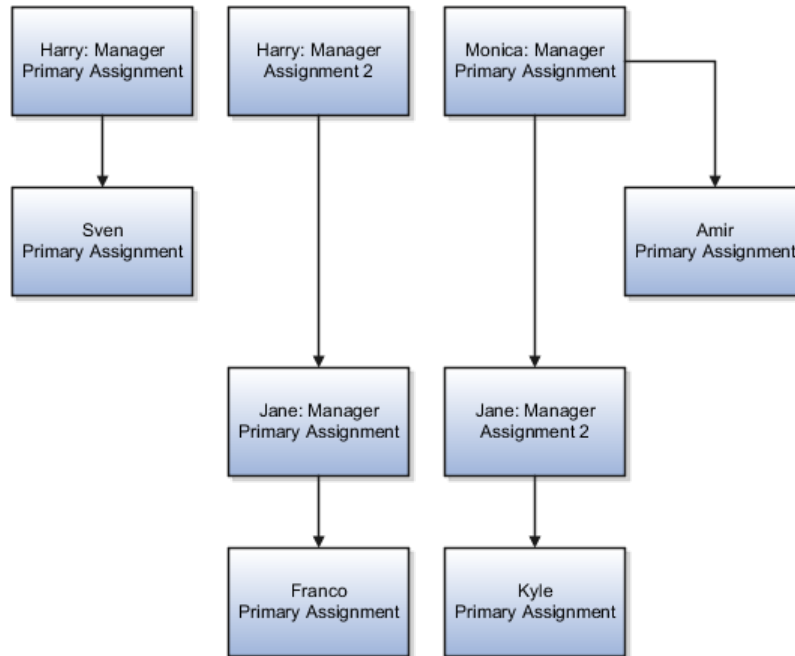
### Note

Managers other than line managers can access person records secured by manager hierarchy only if their roles have the appropriate function- and data-security access. Providing this access to managers other than line managers is a security-setup task.

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Consider the following example manager hierarchy.

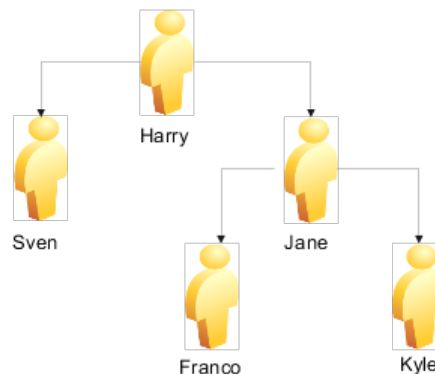
Harry is a line manager with two assignments. In his primary assignment, he manages Sven's primary assignment. In his assignment 2, Harry manages Jane's primary assignment. Monica is a line manager with one assignment. She manages Jane's assignment 2 and Amir's primary assignment. In her primary assignment, Jane manages Franco's primary assignment. In her assignment 2, Jane manages Kyle's primary assignment.



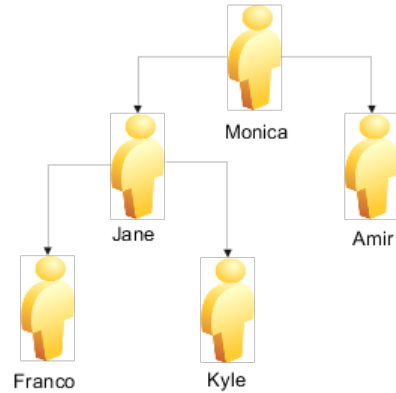
### Person-Level Manager Hierarchy

In a person-level manager hierarchy, the data instance set includes the person records of any person who is in a reporting line, directly or indirectly, to any of the signed-on manager's own assignments.

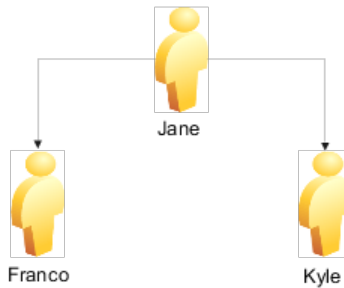
In a person-level manager hierarchy, Harry's data instance set includes the person records for Sven, Jane, Franco, and Kyle.



In a person-level manager hierarchy, Monica's data instance set includes the person records for Jane, Franco, Kyle, and Amir.



In a person-level manager hierarchy, Jane's data instance set includes the person records for Franco and Kyle.



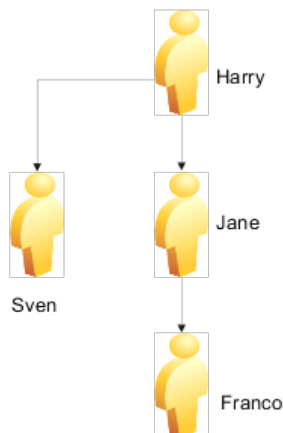
When you include the person security profile in an HCM data role and assign the data role to a manager, the person-level hierarchy ensures that the signed-on manager can access the person record and all assignment records of every person in his or her manager hierarchy (subject to any other criteria in the security profile).

### Assignment-Level Manager Hierarchy

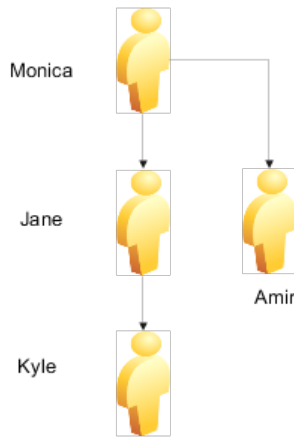
In an assignment-level manager hierarchy, managers see the person records of:

- People who report to them directly from one or more assignments
- People who report to the assignments that they manage

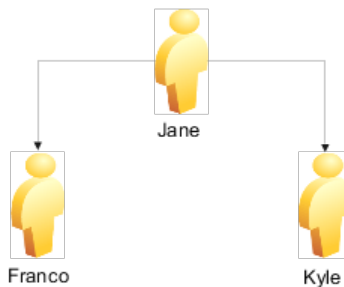
In an assignment-level manager hierarchy, Harry's data instance set includes Sven, Jane, and Franco. It does not include Kyle, because Kyle reports to an assignment that Monica manages.



In an assignment-level manager hierarchy, Monica's data instance set includes Jane, Kyle, and Amir. It does not include Franco, because Franco reports to an assignment that Harry manages.



In an assignment-level manager hierarchy, Jane's data instance set includes Franco and Kyle.



An assignment-level manager hierarchy is not the same as assignment-level security, which would secure access to individual assignments: you cannot secure access to individual assignments.

## Specifying the Manager Type: Explained

When you secure person records by manager hierarchy, the data instance set comprises person records from manager hierarchies of the specified types.

If you set **Manager Type** to:

- **All**, the security profile includes all types of manager hierarchies
- **Line Manager**, the security profile includes only the line manager hierarchy
- **Selected**, the security profile includes only the specified type of manager hierarchy

Typically, you select **Line Manager** to identify the data instance set for line managers, **Project Manager** to identify the data instance set for project managers, and so on. If you select **All**, then users with the line manager job role (for example) will have line-manager access to person records in all of their manager hierarchies, which may not be what is required.

## Manager Job Roles

Manager job roles other than line manager are not predefined. Creating job roles for managers such as project managers and resource managers is a security-customization task. Once those roles exist, you can assign security profiles to them (either directly or by creating a separate HCM data role) to enable users with those roles to access their manager hierarchies in the Manager Resources Dashboard and elsewhere.

## Securing Person Records by Workforce Structures: Points to Consider

In a person security profile, you can identify a set of person records by one or more of the department, business unit, legal employer, position, payroll, and legislative data group (LDG) workforce structures. For example, the data instance set from a person security profile could include all workers who occupy a particular position at a specified legal employer.

### Identifying the Work Structures

You identify each of the work structures using a security profile of the relevant type.

To identify:

- Departments, business units, and legal employers, you use organization security profiles
- Positions, you use a position security profile
- LDGs, you use an LDG security profile
- Payrolls, you use a payroll security profile

These security profiles are reusable: you can include them in any person security profile where they can identify the relevant data instance set of person records. The person security profile inherits the data instance set of any security profile that you include.

### Using Assignment-Level Attributes

Although the department, business unit, payroll, and position values are assignment attributes, you cannot secure access to individual assignments. Therefore, if one of a person's assignments satisfies the criteria in a person security profile, then all of the person's assignments belong to the person security profile's data instance set.

### Securing Person Records by LDG

When you secure person records by LDG, a person's record and all assignments belong to the person security profile's data instance set if the LDG is associated with the payroll statutory unit of the person's legal employer.

## Securing Person Records by Payroll

When you secure person records by payroll, a person's record and all assignments belong to the person security profile's data instance set if at least one of the person's assignments includes the payroll.

## Securing Person Records by Legal Employer

If you secure person records by legal employer, then the person records and all assignments of workers with at least one work relationship of any type with the specified legal employer belong to the person security profile's data instance set. For such workers, assignments belonging to work relationships with other legal employers also belong to the data instance set.

Other criteria in the person security profile may limit the effects of securing by legal employer. For example, if you also secure person records by person type, select the employee system person type, and specify restricted access, then only persons who have employee work relationships with the specified legal employer belong to the security profile's data instance set. All other person records are excluded.

## Creating an HCM Data Role: Worked Example

This example shows how to create an HCM data role.

The legal employer ABC Industrial comprises sales, development, and manufacturing departments. This example shows how to create an HCM data role for a human resource (HR) specialist in the sales department of ABC Industrial that will secure access to person and assignment records, organizations, positions, countries, legislative data groups (LDGs), document types, payrolls, and payroll flows.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What is the name of the HCM data role?	HR Specialist ABC Industrial - Sales Department
Which job role will the HCM data role include?	Human Resource Specialist
Which person records do users need to access?	Users need to access the managed person records of: <ul style="list-style-type: none"><li>• All workers in the sales department of ABC Industrial</li><li>• The emergency contacts, beneficiaries, and dependents of all workers in the sales department of ABC Industrial</li></ul>
Which public person records do users need to access?	All
Which organizations do users need to access?	All organizations of all types in ABC Industrial
Which positions do users need to access?	Vice President of Sales and all subordinate positions in the position hierarchy of ABC Industrial
Which countries do users need to see in lists of countries?	All



Which LDGs do users need to access?	The LDG for the legal employer ABC Industrial. This LDG is identified in an existing LDG security profile.
Which document types do users need to access?	All
Which payrolls do users need to access?	Payrolls for the legal employer ABC Industrial. These payrolls are identified in an existing payroll security profile.
Which payroll flows do users need to access?	Payroll flows for the legal employer ABC Industrial. These payroll flows are identified in an existing payroll flow security profile.

Create the HCM data role by:

1. Naming the HCM data role and selecting the associated job role
2. Specifying the security criteria for each HCM object type
3. Creating new security profiles
4. Reviewing and submitting the new HCM data role

### Naming the HCM Data Role and Selecting the Job Role

1. In the Search Results region of the Manage HCM Data Roles page, click **Create**.
2. On the Create Data Role: Select Role page, complete the fields as shown in this table.

Field	Value
Data Role	HR Specialist ABC Industrial - Sales Department
Job Role	Human Resource Specialist

3. Click **Next**.

### Specifying Security Criteria for Each HCM Object Type

1. In the Organization region of the Create Data Role: Security Criteria page, complete the fields as shown in the table.

Field	Value
Organization Security Profile	Create New
Name	ABC Industrial - All Organizations
Secure by organization hierarchy	Yes

2. In the Position region, complete the fields as shown in the table

Field	Value
Position Security Profile	Create New
Name	ABC Industrial Positions - Top Position Vice President of Sales
Secure by position hierarchy	Yes

3. In the Countries region, select the predefined country security profile View All Countries.
4. In the Legislative Data Group region, select the existing LDG security profile ABC Industrial LDGs.
5. In the Person region, complete the fields as shown in the table.

Field	Value
Person Security Profile	Create New
Name	ABC Industrial Sales Department - All Workers and Worker Contacts
Include related contacts	Yes
Secure by person type	Yes
Secure by department	Yes

6. In the Public Person region, select the predefined person security profile View All People.
7. In the Document Type region, select the predefined document type security profile View All Document Types.
8. In the Payroll region, select the existing payroll security profile ABC Industrial Payrolls.
9. In the Payroll Flow region, select the existing payroll flow security profile ABC Industrial Payroll Flows.
10. Click **Next**.

## Creating the Organization Security Profile

1. In the Organization Hierarchy region of the Assign Security Profiles to Role: Organization Security Profile page, ensure that the **Secure by organization hierarchy** option is selected.
2. Complete the fields in the Organization Hierarchy region as shown in the table.

Field	Value
Tree Structure	Generic organization hierarchy
Organization Tree	ABC Industrial Organization Tree
Top Organization Selection	Use the assignment department
Include top organization	Yes

3. Click **Next**.

## Creating the Position Security Profile

1. In the Position Hierarchy region of the Assign Security Profiles to Role: Position Security Profile page, ensure that the **Secure by position hierarchy** option is selected.

2. Complete the fields in the Position Hierarchy region as shown in the table.

Field	Value
Position Tree	ABC Industrial Positions
Top Position Selection	Specify top position
Position	Vice President of Sales
Include top position	Yes

3. Navigate to the Assign Security Profile to Role: Person Security Profile page.

## Creating the Person Security Profile

1. In the Basic Details region of the Assign Security Profiles to Role: Person Security Profile page, ensure that the option **Include related contacts** is selected.
2. In the Person Types region, ensure that the **Secure by person type** option is selected, and complete the fields as shown in the table.

Type	System Person Type	Access
System	Employee	Restricted
System	Contingent worker	Restricted
System	Nonworker	Restricted
System	Pending worker	Restricted

3. In the Workforce Structures region, ensure that the option **Secure by department** is selected, and select the existing organization security profile ABC Industrial - Sales Department.
4. Click **Review**.

## Review and Submit the HCM Data Role

1. On the Create Data Role: Review page, review the new HCM data role.
2. Click **Submit**.
3. On the Manage HCM Data Roles page, search for the new HCM data role. In the search results, confirm that the role status is Requested. Once the role status is Request Complete, the role can be provisioned to users.

## Assigning Security Profiles to Abstract Roles: Explained

Abstract roles define a worker's role in the enterprise independently of the job that the worker is hired to do.

These abstract roles are predefined in Oracle Fusion Human Capital Management:

- Line manager
- Employee

- Contingent worker

## Enabling Data Access for Abstract Roles

Typically, you create role mappings during implementation to provision abstract roles automatically to eligible workers. Although users with these roles may be able to sign in to Oracle Fusion Applications and navigate to tasks of interest, they have no automatic access to data. For example, employees can navigate to the Person Gallery but cannot view portraits or see lists of person names in product interfaces, and line managers can navigate to the Manager Resources Dashboard but can see no data for their organizations. To enable users with abstract roles to access relevant HCM data, you must assign security profiles to those abstract roles.

## Predefined Security Profiles to Assign to Abstract Roles

To enable users with abstract roles to access relevant data, you assign the following predefined security profiles directly to the employee, contingent worker, and line manager abstract roles.

Security Profile Type	Employee	Contingent Worker	Line Manager
Person	View Own Record	View Own Record	View Manager Hierarchy
Public person	View All Workers	View All Workers	View All Workers
Organization	View All Organizations	View All Organizations	View All Organizations
Position	View All Positions	View All Positions	View All Positions
Legislative data group	View All Legislative Data Groups	View All Legislative Data Groups	View All Legislative Data Groups
Country	View All Countries	View All Countries	View All Countries
Document type	View All Document Types	View All Document Types	View All Document Types
Payroll Flow	Not applicable	Not applicable	View All Flows
Workforce Business Process	Not applicable	Not applicable	View All Workforce Business Processes

After implementation, you may want to change aspects of this data access. For example, you may want to create your own security profiles and assign those directly to abstract roles; however, you must remember that such changes apply to all users who have the abstract role.

## HCM Data Roles

Users who have abstract roles are likely to gain additional data access by means of HCM data roles that you define for their job roles. For example, you may create an HCM data role for human resource specialists to enable them to access the person records of all workers in a legal employer. Such data access is in addition to any data access provided by abstract roles.

## Assigning Security Profiles to Abstract Roles: Worked Example

This example shows how to assign predefined security profiles to the employee, contingent worker, and line manager abstract roles.

## Searching for the Employee Abstract Role

1. On the All Tasks tab of the Overview page of the Setup and Maintenance work area, search for the task Manage Data Role and Security Profiles.
2. In the Search Results region, click **Go to Task**.
3. On the Manage Data Roles and Security Profiles page, enter the abstract-role name Employee in the **Role** field. Click **Search**.
4. In the Search Results region, highlight the entry for the predefined Employee role and click **Assign**.

## Assigning Security Profiles to the Employee Abstract Role

1. On the Assign Data Role: Security Criteria page, select the security-profile values shown in the following table. These are the security profiles that are typically assigned to the employee role. You may see a subset of these security profiles, depending on the combination of product offerings that you are implementing.

Field	Value
Organization Security Profile	View All Organizations
Position Security Profile	View All Positions
Country Security Profile	View All Countries
LDG Security Profile	View All Legislative Data Groups
Person Security Profile (Person section)	View Own Record
Person Security Profile (Public Person section)	View All Workers
Document Type Security Profile	View All Document Types

2. Click **Review**.
3. On the Assign Data Role: Review page, click **Submit**.
4. On the Manage Data Roles and Security Profiles page, search again for the predefined Employee role.
5. In the Search Results region, confirm that a green check mark appears in the **Security Profiles** column for the Employee role. The check mark confirms that security profiles are assigned to the role.

Repeat the steps in Searching for the Employee Abstract Role and Assigning Security Profiles to the Employee Abstract Role for the predefined Contingent Worker role.

## Searching for the Line Manager Abstract Role

1. On the Manage Data Roles and Security Profiles page, enter the abstract-role name Line Manager in the **Role** field. Click **Search**.
2. In the Search Results region, highlight the entry for the predefined Line Manager role and click **Assign**.

## Assigning Security Profiles to the Line Manager Abstract Role

1. On the Assign Data Role: Security Criteria page, select the security-profile values shown in the following table. These are the security profiles that are typically assigned to the line manager role. You may see a subset of these security profiles, depending on the combination of product offerings that you are implementing.

Field	Value
Organization Security Profile	View All Organizations
Position Security Profile	View All Positions
LDG Security Profile	View All Legislative Data Groups
Person Security Profile (Person section)	View Manager Hierarchy
Person Security Profile (Public Person section)	View All Workers
Document Type Security Profile	View All Document Types
Payroll Flow	View All Flows
Workforce Business Process	View All Workforce Business Processes

2. Click **Review**.
3. On the Assign Data Role: Review page, click **Submit**
4. On the Manage Data Roles and Security Profiles page, search again for the predefined Line Manager role.
5. In the search results, confirm that a green check mark appears in the **Security Profiles** column for the Line Manager role. The check mark confirms that security profiles are assigned to the role.

## HCM Data Roles Configuration Diagnostic Test

The HCM Data Roles Configuration diagnostic test verifies that the Manage HCM Data Roles task flow is configured successfully for a specified user.

You run the HCM Data Roles Configuration diagnostic test from the **Help - Troubleshooting - Run Diagnostic Tests** menu.

### *Diagnostic Test Parameters*

#### **User Name**

The test is performed for the specified user. The user does not need to be signed-in while the test is running; however, the user must have signed in at least once, because the test uses details from the user's current or latest session.

## HCM Security Profile Configuration Diagnostic Test

The HCM Security Profile Configuration diagnostic test verifies that the Manage Security Profiles task flows are configured successfully for a specified user.

You run the HCM Security Profile Configuration diagnostic test from the **Help - Troubleshooting - Run Diagnostic Tests** menu.

### ***Diagnostic Test Parameters***

#### **User Name**

The test is performed for the specified user. The user does not need to be signed-in while the test is running; however, the user must have signed in at least once, because the test uses details from the user's current or latest session.

## **HCM Securing Objects Metadata Diagnostic Test**

The HCM Securing Objects Metadata diagnostic test validates securing-object metadata for the HCM securing objects.

You run the HCM Securing Objects Metadata diagnostic test from the **Help - Troubleshooting - Run Diagnostic Tests** menu.

### ***Diagnostic Test Parameters***

#### **Securing Object**

Enter the name of an HCM securing object from the following table.

<b>Securing Object Name</b>	<b>Description</b>
PERSON	Person
LDG	Legislative data group
POSITION	Position
ORGANIZATION	Organization
PAYROLL	Payroll
FLOWPATTERN	Payroll flow
DOR	Document type
COUNTRY	Country

If you do not enter the name of a securing object, the test is performed for all securing objects.

## **FAQs for Define Data Security for Human Capital Management**

### **Can users access the contact records of the people they can access?**

Having access to a person's record does not automatically provide access to the records of that person's emergency contacts, dependents, or beneficiaries. However, you can include the person records of a person's contacts in the person security profile's data instance set by selecting the **Include related contacts** option.

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#### **Note**

If a person's contact is also a worker, the contact's person record is excluded from the person security profile's data instance set, even when **Include related**

**contacts** is selected, unless the contact's person record satisfies all other criteria in the security profile.

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### **What happens if a person has multiple assignments or person types?**

A user who has access to a person record also has access to all of the person's assignments; only one of the assignments has to satisfy any assignment-related criteria in the person security profile. For example, if a user can access the records of contingent workers in a particular legal employer and department, then the user can access all assignments belonging to those contingent workers, even if some are employee or nonworker assignments with different legal employers.

### **What happens if a person has no assignments?**

Some person records, such as those of emergency contacts, have no assignments. The person records of people who have no assignments do not need to satisfy any assignment-related criteria, such as department and position, in the person security profile. Person records without assignments belong to the person security profile data instance set, provided that they satisfy any person-related criteria (person type, global name range, or custom criteria) in the person security profile. Such records are an exception to the general rule that all of the criteria in a security profile must be satisfied.

### **What's the difference between a generic organization hierarchy and a department hierarchy?**

A generic organization hierarchy is a single hierarchy that includes organizations of all classifications, such as division, legal entity, department, and tax reporting unit.

A department hierarchy includes only those organizations that are classified as departments.

### **What happens if I select an organization security profile for a generic organization hierarchy?**

If you secure by department, for example, only those organizations in the generic organization hierarchy that are classified as departments have an effect in the security profile. Other types of organizations in the generic organization hierarchy, such as business units and legal employers, are disregarded.

If you secure by more than one workforce structure, you can select the same organization security profile for each type of work structure. In each case, only organizations of the relevant organization classification have an effect.

### **What happens if I use the department or position from the user's assignment as the top department or position?**

The access that each user has to the organization or position hierarchy depends on the user's assignments. Consequently, the data instance set from a single security profile can be different for each user.



If the user has multiple assignments in the selected organization or position hierarchy, then multiple top organizations or positions may exist. In this case, all organizations or positions from the relevant subhierarchies belong to the security profile's data instance set.

### **When do I need a country security profile?**

Country security profiles identify one or more countries to appear in lists of countries. For example, a user who is creating a legislative data group must associate it with a country; the list of countries that the user sees is determined by the country security profile included in the user's HCM data role. The predefined country security profile View All Countries meets most needs and can be included in any HCM data role. However, you can limit the country list available to a particular HCM data role by creating a country security profile for that data role. The countries that you can include in the country security profile are those defined in the table FND\_TERRITORIES.

### **When do I need a legislative data group security profile?**

You need a legislative data group (LDG) security profile to identify one or more LDGs to which you want to secure access. If the responsibility for managing all LDGs in your enterprise belongs to a particular HCM data role, include the predefined LDG security profile View All Legislative Data Groups in the data role. If responsibility for particular LDGs belongs to various HCM data roles, you can create an appropriate LDG security profile for each data role. For example, if European and American LDGs are the responsibility of different HCM data roles, you need one LDG security profile for European LDGs and one for American LDGs.

You can use an LDG security profile to secure access to person records. In this case, if the LDG is associated with the payroll statutory unit of a person's legal employer, then that person's record belongs to the person security profile data instance set.

### **When do I need a workforce business process security profile?**

Workforce business process security profiles identify the workforce business processes that a user can start from the **Start Process** menu in the Workforce Processes work area. The predefined security profile View All Workforce Business Processes includes all registered workforce business processes. To enable users to start all workforce business processes, you include the predefined security profile in relevant HCM data roles; you do not need to create a workforce business process security profile to provide this access.

To enable users to start some but not all workforce business processes, you must:

- Create a workforce business process security profile that identifies the workforce business processes that the user can start.
- Include the new workforce business process security profile in relevant HCM data roles.

### **What happens if I edit a security profile that's enabled?**

If the security profile is included in an HCM data role, then the data instance set for the security profile is updated automatically when you save your changes.

For example, if you remove a position from a position security profile, the position is removed from the data instance set of the relevant position security profile. At the next attempt to access the data identified in the security profile, the user finds the updated data instance set.

### **What happens if I disable a security profile?**

When the security profile is included in an HCM data role, users continue to access the tasks associated with their job roles or abstract roles because security profiles have no effect on function security privileges. However, no data is returned from the disabled security profile. For example, an administrator authorized to update organization definitions would continue to access organization-related tasks, but would not be able to access the organizations identified in a disabled organization security profile.

You cannot disable a security profile that is included in another security profile.

### **How do I provision HCM data roles to users?**

You can map any role, including HCM data roles, to one or more assignment attributes. For example, you can map a role to a particular legal employer, department, and job. This mapping indicates that the role is relevant to users whose assignment attributes match those specified.

If the role mapping for a role has the **Autoprovision** option selected, then the role is provisioned automatically to any user with at least one assignment that matches all specified attributes.

If the role mapping for a role has the **Requestable** option selected, then any human resource specialist or line manager with at least one assignment that matches all specified attributes can provision the role manually to other users.

If the role mapping for a role has the **Self-requestable** option selected, then any user with at least one assignment that matches all specified attributes can request the role.

### **What happens if I edit an HCM data role?**

You can edit or replace the existing security profiles in an HCM data role. When you save your changes, the relevant data instance sets are updated. Users with this HCM data role find the revised data instance sets when they next sign in.

You cannot change the HCM data role name nor select a different job role. If you need to make such changes, you must create a new HCM data role and disable this HCM data role, if appropriate.

### **How can I diagnose any issues with HCM data roles and security profiles?**

After creating HCM data roles and security profiles, you can run diagnostic tests from the **Help - Troubleshooting - Run Diagnostic Tests** menu to diagnose any issues.

The following diagnostic tests are available:

Diagnostic Test Name	Description
HCM Data Roles Configuration	Verifies that the Manage HCM Data Roles task flow is configured successfully for a specified user.
HCM Data Role Detailed Information	Identifies any potential issues with a specified HCM data role.
HCM Security Profile Configuration	Verifies that the Manage Security Profiles task flows are configured successfully for a specified user.
HCM Security Profiles Detailed Information	Identifies any potential issues with one or all security profiles of a specified type.
HCM Securing Objects Metadata	Validates securing-object metadata for the HCM securing objects.



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# Common Applications Configuration: Define Automated Governance, Risk, and Performance Controls

## Segregation of Duties: Explained

Segregation of duties (SOD) separates activities such as approving, recording, processing, and reconciling results so an enterprise can more easily prevent or detect unintentional errors and willful fraud. SOD policies, called access control policies in Application Access Controls Governor (AACG), exert both preventive and detective effects.

SOD policies constrain duties across roles so that unethical, illegal, or damaging activities are less likely. SOD policies express constraints among roles. Duty role definitions respect segregation of duties policies.

### Application Access Controls Governor

You manage, remediate, and enforce access controls to ensure effective SOD using the Application Access Controls Governor (AACG) product in the Oracle Governance, Risk and Compliance Controls (GRCC) suite.

AACG applies the SOD policies of the Oracle Fusion Applications security reference implementation using the AACG Oracle Fusion Adapter.

AACG is integrated with Oracle Identity Management (OIM) in Oracle Fusion Applications to prevent SOD control violations before they occur by ensuring SOD compliant user access provisioning. SOD constraints respect provisioning workflows. For example, when provisioning a Payables role to a user, the SOD policy that ensures no user is entitled to create both an invoice and a payment prevents the conflicting roles from being provisioned. AACG validates the request to provision a user with roles against SOD policies and provides a remediating response such as approval or rejections if a violation is raised.

Use AACG to for the following.

- Define SOD controls at any level of access such as in the definition of an entitlement or role.
- Simulate what-if SOD scenarios to understand the effect of proposed SOD control changes.

- Use the library of built-in SOD controls provided as a security guideline.

## Managing Segregation of Duties

SOD policies express incompatible entitlement or incompatible access points into an application. In GRCC, an access point is the lowest level access for a particular application. In GRCC, entitlement is a grouping of access points. As a security guideline, group the lowest level access points or define the SOD policy at the access level causing the least amount of change. Business activities are enabled at access points. In Oracle Fusion Applications, the hierarchy of access points in descending levels is users, roles, and entitlement.

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### Note

AACG entitlements are logical groupings of security objects that represent Oracle Fusion Application access points such as roles or entitlement.

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### Note

In AACG, segregation of duties policies are called access controls.

Oracle Fusion Applications does not predefine business logic for dealing with SOD conflicts. Oracle Fusion Applications does define a set of states where role requests are suspended pending resolution of SOD violations the role request introduces. In most cases, Oracle Fusion Applications invokes OIM to handle role requests. Enterprises define SOD resolution rules when defining SOD policy.

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## Remediating Segregation of Duties Policy Violations

The risk tolerance of your enterprise determines what duties must be segregated and how to address violations.

AACG assists in remediation of violations with a guided simulation that identifies corrective action. You determine the exact effects of role and entitlement changes prior to putting them into production, and adjust controls as needed.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Segregation of Duties in the Security Reference Implementation: Explained

Segregation of duties (SOD) is a special case of function security enforcement. A segregation of duties conflict occurs when a single user is provisioned with a role or role hierarchy that authorizes transactions or operations resulting in the possibility of intentional or inadvertent fraud.

The predefined SOD policies result in duty separation with no inherent violations. For example, an SOD policy prevents a user from entitlement to create both payables invoices and payables payments.

However, the most common duties associated with some job and abstract roles could conflict with the predefined segregation of duties. A predefined role hierarchy or job or abstract role may include such common duties that are incompatible according to a segregation of duties policy. For example, the predefined Accounts Payable Supervisor job role includes the incompatible duties: Payables Invoice Creation Duty and Payables Payment Creation Duty.

Every single predefined duty role is free from an inherent segregation of duties violation. For example, no duty role violates the SOD policy that prevents a user from entitlement to both create payables invoices and payables payments.

Jobs in the reference implementation may contain violations against the implemented policies and require intervention depending on your risk tolerance, even if you define no additional jobs or SOD policies.

Provisioning enforces segregation of duties policies. For example, provisioning a role to a user that inherits a duty role with entitlement to create payables invoices enforces the segregation of duties policy applied to that duty role and ensures the user is not also entitled to create a payables payment. When a role inherits several duty rules that together introduce a conflict, the role is provisioned with a violation being raised in the Application Access Controls Governor (AACG). If two roles are provisioned to a user and introduce a segregation of duties violation, the violation is raised in AACG.

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**Note**

SOD policies are not enforced at the time of role definition.

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Aspects of segregation of duties policies in the security reference implementation involve the following.

- Application Access Controls Governor (AACG)
- Conflicts defined in segregation of duties policies
- Violations of the conflicts defined in segregation of duties policies

**Application Access Controls Governor (AACG)**

AACG is a component of the Governance, Risk, and Compliance Controls (GRCC) suite of products where segregation of duties policies are defined.

- Define SOD controls at any level of access such as in the definition of an entitlement or role.
- Simulate what-if SOD scenarios to understand the effect of proposed SOD control changes.
- Use the library of built-in SOD controls provided as a security guideline.

Your risk tolerance determines how many duties to segregate. The greater the segregation, the greater the cost to the enterprise in complexity at implementation and during maintenance. Balance the cost of segregation with the reduction of risk based on your business needs.

## Conflicts

An intra-role conflict occurs when a segregation of duties policy expresses constraints within the construct of a single role (entitlement and duties) that creates violations.

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### Tip

As a security guideline, use only the predefined duty roles, unless you have added new applications functions. The predefined duty roles fully represent the functions and data that must be accessed by application users and contain all appropriate entitlement. The predefined duty roles are inherently without segregation of duty violations of the constraints used by the Application Access Controls Governor.

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## Violations

A segregation of duties violation occurs when a policy is defined that allows a segregation of duties conflict to occur.

Notifications report conflicts to the requester of the transaction that raised the violation. Oracle Identity Management (OIM) shows the status of role requests indicating if a segregation of duties violation has occurred.

For information on configuring audit policies, see the Oracle Fusion Applications Administrator's Guide.

For more information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Defining Segregation of Duties Policies: Points To Consider

Segregation of duties (SOD) policies express incompatibilities enforced to control access in defined contexts.

In Oracle Fusion Applications, SOD policies protect against the following incompatibilities.

- Privilege X is incompatible with privilege Y
- Role A is incompatible with role B
- Any privileges in role A are incompatible with any privileges in role B.
- Privilege X is incompatible with any privileges in role B.

The following examples of SOD policies illustrate incompatible entitlement.

- No user should have access to Bank Account Management and Supplier Payments duties.



- No user should have access to Update Supplier Bank Account and Approve Supplier Invoice entitlement.

## Data Contexts

You can extend SOD policies to control access to specific data contexts.

For example, no single individual must be able to source a supplier in a business unit and approve a supplier invoice in the same business unit.

## Exclusion and Inclusion Conditions

SOD policies may include exclusion conditions to narrow the SOD scope and reduce false positive violations, or inclusion conditions to broaden the scope.

Conditions apply to access points globally, to policies, or to access paths defined by policies. Access path conditions can exclude a user from a role, an Oracle Fusion Applications entitlement from a role, or a permission from an Oracle Fusion Applications entitlement.

The following global exclusion conditions are predefined in Oracle Fusion Applications and available when creating SOD policies.

- User Status
- User Name
- Enterprise Role
- Action
- Business Unit
- Within Same Business Unit

## Enforcement

Oracle Fusion Applications enforces SOD policies under the following circumstances.

- When granting entitlement to a role
- When provisioning a role to a user

For information on managing segregation of duties, see Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

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### Note

SOD policies are not enforced at the time of role definition.

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A single SOD policy can include entitlement from multiple instances of a single enterprise resource planning environment. For example, one SOD policy is

enforced in implementation, test, and production instances of Oracle Fusion Applications.

## Managing Segregation of Duties Risks and Violations: Critical Choices

You assess and balance the cost of duty segregation against reduction of risk based on the requirements of your enterprise.

The types of people who resolve SOD conflicts include the following.

- Administrator of an external program such as the Procurement Administrator for the supplier portal or the Partner Manager for the PRM Program
- Senior executive spanning multiple organizations in an enterprise with opposing interests
- Risk management professional implementing an Oracle Governance, Risk and Compliance Controls (GRCC) initiative
  - Predefines a set of conditions and informs access provisioning staff to approve requests and prove the exception based on certain conditions
  - Allows defining rules to route SOD violations for approval

You view and respond to risks and violations in the Application Access Controls Governor (AACG).

You may wish to override an SOD violation. For example, the Accounts Payable Supervisor includes incompatible duties to create both invoices and payments. When you provision this job role to a user, you may waive the violation in the AACG. You may waive the violation for the currently provisioned user, for the SOD policy that raised the violation, or for the SOD policy within a particular data set, such as a business unit.

The risk tolerance of your enterprise guides how you respond to conflicts. For example, a user may be provisioned with both the role of Order Manager and Shipping Agent. The Order Manager role entitles the user to enter orders, which could result in exploitation when filling shipping quotas. You can remove the entitlement to enter orders that the Order Manager job role inherits from the Orchestration Order Scheduling Duty role. Or you could segregate the shipping and order entry duties by defining an SOD policy that allows a user to have either job role but not both.

### False Positives

False positives can be SOD policy violations that are not actually violations, or are violations within your risk tolerance and therefore do not require corrective action.

You can reduce false positives by the following methods.

- Define exclusion conditions that can be applied to individual or groups of policies.
- Define logically complex SOD policies that enforce more exacting specifications.
- Determine whether conflicts should be prevented, monitored, or subjected to approval during provisioning.

### **Path Level Detection**

Conflict analysis detects a user's multiple paths to one or more conflicting access points.

For example, a user may be able to reach a single access point through one or more roles, or by one entitlement leading to another through submenus to a function that represents a risk. The resulting conflict path shows if the conflict is generated by inappropriate role provisioning or configuration of applications. The audit shows the paths from any number of users to any number of access points involved in conflicts, which lets you visualize the root cause and remediate effectively.

AACG assigns one or more users to review all paths involved in a given conflict so that the entire conflict can be addressed in a coherent way.

### **Waiving or Accepting Violations**

AACG lets you accept or waive a violation. Your reasons may include that you accept the risk or will define compensating controls.

A waiver may apply to the current user, constraint, or constraint within a dimension such as the business unit.

### **Resolving Conflicts**

The risk tolerance of the enterprise determines whether a segregation of duties conflict must be removed from the security reference implementation.

The following approaches resolve conflicts.

- Change the segregation of duties policy.
- Ensure a job role does not contain incompatible duties.
- Define data security policies that restrict authorized access by incompatible duties.

Changing a segregation of duties policy may not be possible in most cases. For example, a policy that segregates creation of payables invoice from making payables payments should be preserved, even if the Accounts Payables Manager job role includes a duty role for each activity. To prevent an accounts payables manager from being authorized to perform both duties, or from being authorized to make payables payments to self and direct reports, the Accounts Payables Manager job role must be changed. The security implementation can be changed to include two job roles that segregate the incompatible duties. Added data security policy grants can restrict the access to at risk data.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Role Provisioning and Segregation of Duties: How They Work Together

Segregation of duties (SOD) checks occur when roles are assigned to users. The checks are based on Oracle Application Access Controls Governor (AACG) policies. The Oracle Identity Management (OIM) integration includes predefined routing rules for remediation in the Manage IT Security business process.

External users such as suppliers or partners need to be provisioned with roles to facilitate access to parent company interfaces and data. The process by which such provisioning requests are approved in Oracle Fusion Applications helps explain the request flows and possible outcomes.

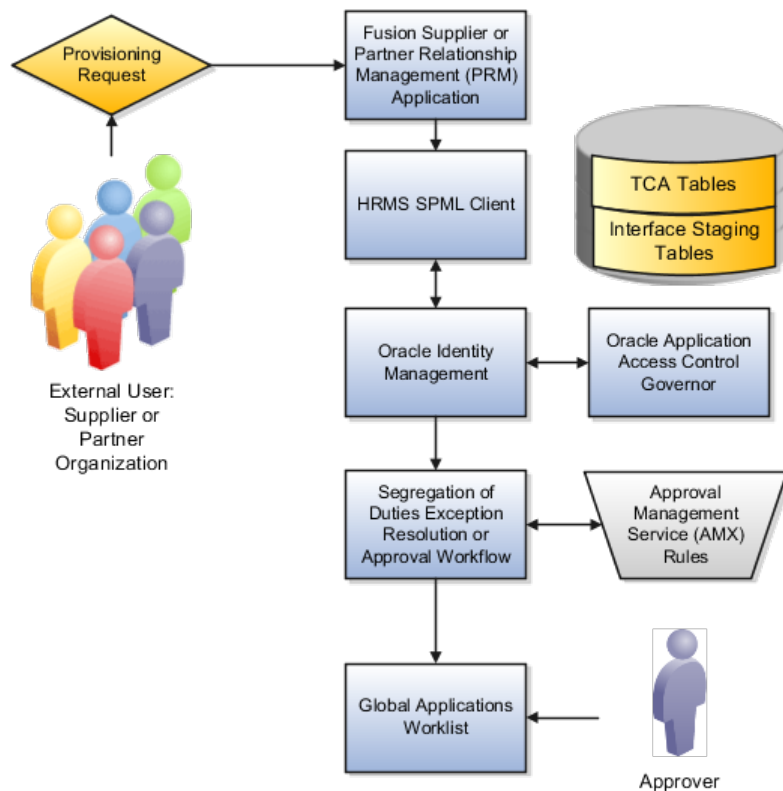
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### Note

In Oracle Identity Management (OIM), external users means users who are not specific to applications, such as enterprise roles or the absence of entitlement to access an application.

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The figure shows the role provisioning request flow. OIM uses AACG to check segregation of duties violations.



## Tables

A supplier or partner requests admission to a program using an implementation of the Supplier Portal Submission. The submission is captured in one or both of the following tables in advance of approving or rejecting the supplier or partner.

- Oracle Fusion Trading Community Model
- Interface Staging

Oracle Fusion Applications collects the employee names for the supplier or partner company at the time the company submits its request to join the program so that all employees accessing Oracle Fusion Applications on behalf of the supplier or partner are provisioned.

AACG in the Oracle Governance, Risk and Compliance Controls (GRCC) suite is certified to synchronize with the policy and identity stores for all pillars or partitions of Oracle Fusion Applications and integrated with the Oracle Fusion Applications security approach to roll up entitlements (by means of duty roles) to the roles that are provisioned to internal users. SOD policies can be defined and enforced at any level of authorization. For external users, SOD policies use attribute information stored in the Trading Community Model tables.

## OIM and the SPML Client

Enterprise business logic may qualify the requester and initiate a role provisioning request by invoking the Services Provisioning Markup Language (SPML) client module, as may occur during onboarding of internal users with Human Capital Management (HCM), in which case the SPML client submits an asynchronous SPML call to OIM. Or OIM handles the role request by presenting roles for selection based on associated policies.

OIM recognizes the role provisioning request and initiates a call to AACG.

OIM apprises the SPML client of the current state of the role provisioning request as SOD\_CHECK\_IN\_PROGRESS.

OIM stores the SOD check result as part of OIM audit data.

OIM apprises SPML client of the current state of the SPML request. The provisioning is either still in progress with segregation of duties being checked, or conflicts were found. If conflicts exist, AACG rejects the request and notifies the application.

Status	Conflicts	Current State
SOD_CHECK_IN_PROGRESS	Unknown	Request sent to AACG and waiting for response
SOD_REMEDIATION_IN_PROGRESS	Conflict found	AACG detected violations and remediation is in progress
SOD_CHECK_APPROVED	No conflict found	No SOD violations found
SOD_CHECK_REJECTED	Conflict found	AACG detected violations that cannot be remediated
SOD_REMEDIATION_APPROVED	Conflict found	AACG detected violations that are approved

SOD_REMEDIATION_REJECTED	Conflict found	AACG detected violations that are rejected by approver
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In the absence of an SOD exception, OIM provisions all relevant users.

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#### Note

When a partner user is provisioned, all employees of the partner enterprise are provisioned. SOD checks occur when an external user requests to join a program, because SOD policies operate across Oracle Fusion Applications, not at the individual level. Supplier or partner company user requests are not approved if there is an SOD conflict against the supplier company.

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OIM provides AACG with the details of SOD exception approval workflow. AACG audits the outcome for use in future detective controls and audit processes.

### Oracle Application Access Controls Governor

AACG may respond with the following.

- Roles may be provisioned to the external user or its employees because no SOD conflict is found
- SOD conflict is found and request is denied because the relevant SOD policy is to be strictly enforced and no exception approval should be allowed
- SOD conflict is found and the exception to the policy is allowed, so the request goes through additional processing, such as an approval process.

Supplier or Partner Relationship Management responds to an SOD exception by updating Trading Community Model tables with the current state. An enterprise may elect to implement a landing pad that offers external users a means of addressing the SOD problem by providing more information or withdrawing the request.

SOD violation checking occurs during role implementation and provisioning, and can be turned on or off if AACG is provisioned and enabled as part of the Oracle Fusion Applications deployment.

### Segregation of Duties Exception Resolution or Approval Workflow

Depending upon status, OIM kicks off an auditable SOD exception resolution workflow. Resolution can be conditional based on approval or requirements such as contracts being met.

If one of the paths for exception resolution is to get an approval, then the SOD exception resolution drives the approval using AMX. Standard AMX rules, not business rules, resolve the approval for the SOD exception, including the following.

- Organizational hierarchies
- Multiple mandatory and optional approvers

- Rerouting and approval delegation

The approver resolution uses AMX Rules Designer to access various user attributes and organizational hierarchies managed in Oracle Fusion Applications repositories. This information is typically not available in OIM or the LDAP identity store repository. Enterprises can define additional approval rules using AMX Thin Client.

The SOD Exception Approver gets a notification through supported channels that a new request is awaiting approval. The approver signs in to the global SOA federated worklist application that aggregates all pending worklist items for the user from all Oracle Fusion applications and logical partitions or pillars of applications. The SOD exception approval tasks show up in the same list.

The SOD exception approval task shows the details of the SPML request and SOD Provisioning results in a page rendered by OIM. The approver may take one of the following actions.

- Approve the request as it is
- Reject the request

If the approver approves the request, OIM sends an SOD\_REMEDIATION\_APPROVED status to the SPML client.

If the approver rejects the request, OIM sends an SOD\_REMEDIATION\_REJECTED status to the SPML client. The provisioning request is considered completed with a failure outcome and the external users is notified. Oracle Fusion Applications updates the Trading Community Model tables with the rejected status

## Remediation Task Assignments

The SOD remediation tasks are assigned based on the role being requested.

1. If the role requested is Chief Financial Officer, the SOD remediation task is assigned to the IT Security Manager role.
2. If the SOD violation results from a policy where the SOD control tag is the Information Technology Management business process and the control priority is 1, the SOD remediation task is assigned to Application Administrator role.
3. In all other scenarios, the SOD remediation task is assigned to the Controller role.

For more information about configuring audit policies, see the Oracle Fusion Applications Administrator's Guide.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.





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# Common Applications Configuration: Define Approval Management for Human Capital Management

## Approval Management: Highlights

Use approval management to determine the policies that apply to approval workflows for particular business objects such as expense reports. For example, you can specify levels of approval for expense reports over a particular amount, to reflect your own corporate policies. You also determine the groups of users who act on these workflow tasks, for example, the chain of approvers for expense reports.

Approval management is fully described in the Oracle Fusion Middleware Modeling and Implementation Guide for Oracle Business Process Management. Though the concepts described there apply also to Oracle Fusion Applications, the only setup relevant to Oracle Fusion Applications involves approval groups and task configuration. Customization of approval workflows themselves is described in the Oracle Fusion Applications Extensibility Guide.

### Overview

- Approval management is an extension of the human workflow services of Oracle SOA Suite. Refer to the Oracle Fusion Middleware Modeling and Implementation Guide for Oracle Business Process Management.

See: Introduction to Approval Management

See: Understanding Approval Management Concepts

### Approval Groups and Task Configuration

- An approval group consists of a name and a predefined set of users configured to act on a task in a certain pattern. Refer to the Oracle Fusion Middleware Modeling and Implementation Guide for Oracle Business Process Management.

See: Administering Approval Groups

- Task configuration involves managing policies that control approval flows. Refer to the Oracle Fusion Middleware Modeling and Implementation Guide for Oracle Business Process Management.

See: Using Task Configuration

- To configure a predefined approval policy, select the predefined rule set and click the Edit task icon button.
- To disable a predefined rule set, select the Ignore this participant check box for that rule set.
- To edit the rules within a predefined rule set, you can insert, update, or delete from the seeded rules as needed while in edit mode.
- You can configure a specific rule to automatically approve without being sent to any approver. Modify the routing for that rule so that it is sent to the initiator (which means the requestor is the approver), set the Auto Action Enabled option to True, and enter APPROVE in the Auto Action field.

### **Customization**

- You can optionally customize predefined approval workflows, for example add post-approval activities or additional stages. Refer to the Oracle Fusion Applications Extensibility Guide.

See: Customizing and Extending SOA Components

## **Defining Approvals for Human Capital Management: Explained**

Oracle Fusion Human Capital Management provides two ways of managing approval policies. This topic introduces each method.

### **Managing Approval Rules and Notifications for Human Capital Management**

Manage Approval Rules and Notifications for Human Capital Management is a simplified, easy-to-use interface for configuring approval policies for the following tasks:

- Hire an employee
- Promote
- Transfer
- Terminate

Using this graphical interface, you select approvers for a task, arrange approvers in the required sequence, and define approval rules for each approver.

### **Managing Task Configurations for Human Capital Management**

Manage Task Configurations for Human Capital Management navigates to Oracle BPM Worklist.

You can use BPM Worklist to review and configure approval policies for any HCM task; however, you are recommended to configure approval policies for the Hire an Employee, Promote, Transfer, and Terminate tasks using the Manage Approval Rules and Notifications for Human Capital Management interface.

You also use BPM Worklist to configure some details for all approval tasks, including Hire an Employee, Promote, Transfer, and Terminate. These details include:

- When to issue approval notifications
- Who can access task contents
- Actions available to approvers
- What to do when errors occur during approval routing
- When tasks expire or should be escalated

- Whether approvers can add other approvers

## Predefined Approval Rules for Oracle Fusion Global Human Resources Tasks: Explained

Predefined approval rules exist for many Oracle Fusion Global Human Resources tasks. In most cases, approval by the first-level and second-level managers of the person who submits the transaction is required; however, you can create different approval rules for any task.

This topic identifies Global Human Resources tasks that have predefined approval rules. It also identifies the attributes enabled for use in custom approval rules for Global Human Resources tasks. Attributes that occur in both employment terms and assignments are enabled in both.

### Approval by First-Level and Second-Level Managers

For the following tasks, the predefined approval rules require approval by the transaction submitter's first-level and second-level managers. The attributes shown in the following table are enabled for use in custom approval rules; the predefined approval rules do not use them.

Task	Enabled Attributes
Transfer (Line Manager)	Action, Action Reason, Assignment Category, Business Unit, Department, Grade, Destination Legal Employer, Hourly Paid or Salaried, Job, Location, Position, Salary Amount, Salary Components, Worker Category, Working at Home
Promotion (Line Manager)	Action, Action Reason, Assignment Category, Business Unit, Department, Grade, Hourly Paid or Salaried, Job, Location, Position, Salary Amount, Salary Components, Worker Category, Working at Home
Change Manager	Action, Action Reason
Change Location	Action, Action Reason, Location
Change Working Hours	Action, Action Reason, Assignment Category, Hourly Paid or Salaried, Worker Category
Terminate Work Relationship	Termination Action, Termination Reason, Notification Date, Recommended for Rehire, Rehire Recommendation Reason, Termination Date
Hire an Employee	Hire Action, Hire Reason, Assignment Category, Business Unit, Citizenship Nationality, Citizenship To Date, Citizenship Status, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Legislative Information (all attributes), Location, National ID Country, National ID Type, Notice Period, Passport Country, Passport Expiration Date, Passport Type, Payroll, Person Type, Position, Probation Period, Role Name, Salary Amount, Salary Basis, Salary Components, Visa or Permit Country, Visa or Permit Expiration Date, Visa or Permit Status, Visa or Permit Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency

Add a Nonworker	Action, Action Reason, Assignment Category, Business Unit, Citizenship Nationality, Citizenship To Date, Citizenship Status, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Legislative Information (all attributes), Location, National ID Country, National ID Type, Passport Country, Passport Expiration Date, Passport Type, Payroll, Person Type, Position, Role Name, Salary Amount, Salary Basis, Salary Components, Visa or Permit Country, Visa or Permit Expiration Date, Visa or Permit Status, Visa or Permit Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency
Add a Contingent Worker	Placement Action, Placement Reason, Assignment Category, Business Unit, Citizenship Nationality, Citizenship To Date, Citizenship Status, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Legislative Information (all attributes), Location, National ID Country, National ID Type, Passport Country, Passport Expiration Date, Passport Type, Payroll, Person Type, Position, Role Name, Salary Amount, Salary Basis, Salary Components, Visa or Permit Country, Visa or Permit Expiration Date, Visa or Permit Status, Visa or Permit Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency
Add a Pending Worker	Action, Action Reason, Assignment Category, Business Unit, Citizenship Nationality, Citizenship To Date, Citizenship Status, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Legislative Information (all attributes), Location, National ID Country, National ID Type, Notice Period, Passport Country, Passport Expiration Date, Passport Status, Passport Type, Person Type, Position, Probation Period, Role Name, Visa or Permit Country, Visa or Permit Expiration Date, Visa or Permit Status, Visa or Permit Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency, Worker Type

Create Work Relationship (if redirected from an Add Person task)	Action, Action Reason, Assignment Category, Business Unit, Citizenship Nationality, Citizenship To Date, Citizenship Status, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Legislative Information (all attributes), Location, National ID Country, National ID Type, Notice Period, Passport Country, Passport Expiration Date, Passport Status, Passport Type, Payroll, Person Type, Position, Probation Period, Role Name, Salary Amount, Salary Basis, Salary Components, Visa or Permit Country, Visa or Permit Expiration Date, Visa or Permit Status, Visa or Permit Type, Worker Category, Worker Type, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency
Manage Work Schedule Assignment	None

### Approval by First-Level Manager

For the following tasks, which include creation, deletion, and editing of the relevant objects, approval by the transaction submitter's first-level manager is required. The attributes shown in the following table are enabled for use in custom approval rules; the predefined approval rules do not use them.

Task	Enabled Attributes
Manage Absence Records	Actual Absence Start Date and Time, Actual Absence End Date and Time, Document Attachments, Document Country, Document Type, Duration, Projected Start Date and Time, Projected End Date and Time, Status
Manage Document Record	Document Category, Document Country, Document Type

### Approval by Worker

For the Share Information task, approval by the worker whose information is shared is required if the task is performed by a manager or human resource specialist.

### No Predefined Approval Rules

For the following tasks, no predefined approval rules exist. However, the attributes shown in the following table are enabled for use in custom approval rules.

Task	Enabled Attributes
Change Address	Address (all attributes), Phone Number (all attributes)
Change Marital Status	Address (all attributes), Marital Status, Phone Number (all attributes)

Create Employment Terms	Action, Action Reason, Assignment Category, Business Unit, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Location, Notice Period, Payroll, Position, Probation Period, Salary Amount, Salary Basis, Salary Components, Person Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency
Manage Employment	Action, Action Reason, Assignment Category, Business Unit, Contract Type, Contract Duration, Department, Grade, Grade Ceiling Step, Grade Ladder, Grade Rate Value, Grade Step, Hourly Paid or Salaried, Job, Location, Notice Period, Payroll, Position, Probation Period, Salary Amount, Salary Basis, Salary Components, Person Type, Worker Category, Working as a Manager, Working at Home, Working Hours, Working Hours Frequency
Manage Grades	Grade Code, Grade Name, Grade Status, Grade Step Name
Manage Grade Ladders	Grade Ladder Status, Grade Name, Step Rate Name, Step Rate Value
Manage Grade Rates	Grade Rate Name, Grade Rate Status, Grade Rate Type, Maximum Value, Midpoint Value, Minimum Value
Manage Jobs	Approval Level, Full Time or Part Time, Job Family, Job Function, Job Name, Management Level, Regular or Temporary, Status, Valid Grade
Manage Locations	Address (all attributes), Designated Receiver, Fax Number, Main Phone Number, Location Status, Ship-to-Site
Manage Organizations	Classification Code
Manage Person	All attributes of: Address, Citizenship, Communication Methods, Contact Relationship, Disability, Driver's License, E-Mail, Ethnicity, Legislative Information, National ID, Passport, Person Name, Phone Number, Religion, Visa, Work Permit
Manage Positions	Bargaining Unit, Business Unit, Department, Entry Grade, Hiring Status, Job, Location, Regular or Temporary, Seasonal, Security Clearance, Valid Grades

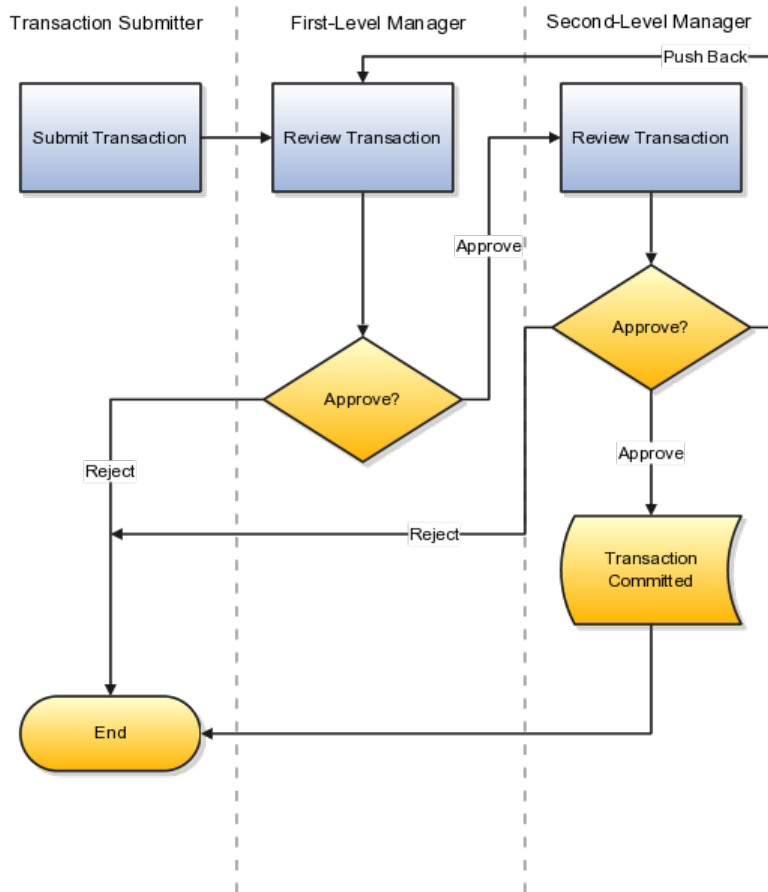
For other Global Human Resources tasks, such as Manage Absence Types, Manage Accrual Plans, and Manage Checklist Templates, no predefined approval rules exist and no attributes are enabled for custom approval rules. Transactions without approval rules or for which no approval task flows exist are approved automatically when approvals are enabled.

## The Predefined Approval Flow for Oracle Fusion Global Human Resources: Explained

Oracle Fusion Global Human Resources has one predefined approval flow. Using Oracle JDeveloper, you can edit a copy of this flow and create additional approval flows for transactions that have different approval requirements.

The following figure shows the predefined approval flow.

1. When the transaction is submitted, it is routed automatically to the worklist of the submitter's first-level manager, who is the first approver.
2. If the submitter's first-level manager approves the transaction, it is routed automatically to the submitter's second-level manager, who is the second approver.
3. If the submitter's second-level manager approves the transaction, it is committed to the database tables.



Security permitting, either approver may edit the transaction. A link to edit the transaction is included in all notifications by default; however, the link can be hidden using personalization. The approval process continues unaltered after the transaction has been edited.

Approval Management configuration options for Oracle Fusion Human Capital Management determine most of the actions that are available to the participants in the approval process. For example:

- Either approver can reject the transaction. By default, the approval process stops when the transaction is rejected.
- The second-level manager can push the transaction back to the first-level manager, who then has a second opportunity to review the transaction and either approve or reject it, as appropriate.

- Ad hoc insertion of approvers in the approval list is permitted.
- Approvers can delegate their approval responsibilities to other approvers.

If you change the default settings of the Approval Management configuration options for a task, then different actions or action outcomes become available to this approval flow.

### Notifications

The following table summarizes who is notified at each event during the predefined approval flow.

Transaction Event	Transaction Submitter	Approver: First-Level Manager	Approver: Second-Level Manager
Routed for approval		Yes	Yes
Rejected	Yes		
Pushed back		Yes	
Committed	Yes	Yes	Yes

In addition, either approver can request more information from the other approver, the transaction submitter, or both. Such requests do not affect control of the approval process, but the person from whom information is requested receives a worklist notification.

## The Manager Hierarchy: How It Is Maintained

In many situations, a person's manager hierarchy must be readily available. For example, a person's line managers may need to be identified during an approval process, and business intelligence reports often retrieve data based on a manager hierarchy.

### How the Manager Hierarchy Is Maintained

A person's manager hierarchy could be derived from live data tables, but the impact of that approach on performance is unpredictable. Therefore, the complete manager hierarchy for each person is extracted from live data tables and stored in a separate manager hierarchy table, known as the denormalized manager hierarchy; it ensures that a person's manager hierarchy is both easily accessible and up to date.

The Refresh Manager Hierarchy process populates the denormalized manager hierarchy table when person records are migrated from other applications. Otherwise, whenever a change is made to a person's manager hierarchy, the change is reflected automatically in the denormalized manager hierarchy table. However, by running the Refresh Manager Hierarchy process in addition to these automatic individual updates, you can ensure that the denormalized manager hierarchy is as accurate as possible. Refresh Manager Hierarchy processes all types of manager hierarchies.

The Refresh Manager Hierarchy process has no default schedule; however, you can run the process occasionally to perform a complete refresh of the



denormalized manager hierarchy. Alternatively, you can specify a schedule to run the process at regular intervals. To run the Refresh Manager Hierarchy process, you must have the human resource specialist job role.

## Approval Management Configuration Options for Oracle Fusion Human Capital Management: Explained

Approval Management has the following default configuration options for all applications in the Oracle Fusion Human Capital Management family.

Configuration Option	Default Value	Effect of Default Value
Ad hoc insertion of approvers	True	Ad hoc insertion of approvers in the approval list is allowed. Users who add approvers may also modify or remove the approvers that they add.
Allow delegate	True	Approvers can delegate their approval responsibilities to other users. One approver replaces another, but the approver list is otherwise unaltered.
Allow pushback	True	An approver can push the transaction back to the previous approver, who thereby 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 cannot 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 have not yet approved.
On error notify	Human Resources Application Administrator	A Human Resources Application Administrator is notified automatically when an error occurs.
Period before task expires	None	Approval tasks do not expire.
Period before task escalates	None	Approval tasks are not escalated to other approvers.

Escalated approver	None	Approval tasks are not escalated to other approvers.
Repeated approver frequency	Once per approval	An approver receives one notification per transaction, even when the approver appears multiple times in the approver list.
Re-evaluate approver list	True	The approver list is regenerated after every response.
Rejection outcome	Stop all	When an approver rejects a transaction, the approval process stops and the transaction is canceled.

## Managing HCM Approval Rules and Notifications: Explained

Manage Approval Rules and Notifications is a graphical interface for configuring approval policies for some Oracle Fusion Human Capital Management (HCM) tasks, such as Hire an Employee. This interface works in conjunction with Oracle BPM Worklist, but enables users to identify approvers and configure approval rules easily for some frequently performed HCM tasks.

### Configuring Approval Policies

On the Manage Approval Rules page for a selected task, you configure the approval policy by arranging approvers in the required order, defining approval rules for each approver, and submitting the approval policy.

The approval policy takes effect immediately and supersedes the current approval policy for the selected task; however, in-progress approvals complete as expected and do not switch to the new policy.

### Approvers

The Manage Approval Rules and Notifications interface supports the following types of approvers:

- Managers of all types
- Named users
- Approval groups, which you define in BPM Worklist
- Position hierarchies
- Representatives, who are workers to whom responsibilities, such as benefits representative, are assigned

Position hierarchies and representatives are supported by the Manage Approval Rules and Notifications interface only; they are not supported by BPM Worklist.

### Supported HCM Tasks

You can use the Manage Approval Rules and Notifications interface to configure approval policies for the following HCM tasks:

- Hire an Employee

- Promote
- Transfer
- Terminate

By default, these HCM tasks are approved by two levels of the line-manager hierarchy.

### **When to Use Oracle BPM Worklist**

For the Hire an Employee, Promote, Transfer, and Terminate tasks, you continue to use BPM Worklist to configure notifications, including when notifications are issued, and process details, such as expiration and escalation policies. You use BPM Worklist to configure all aspects of approvals for all other HCM tasks.

To use BPM Worklist, perform the task Manage Task Configurations for Human Capital Management.

---

#### **Note**

If you configure an approval policy (that is, identify approvers and define approval rules) using the Manage Approval Rules and Notifications interface and subsequently edit it in BPM Worklist, you must continue to maintain it in BPM Worklist; you cannot edit the approval policy again in the Manage Approval Rules and Notifications interface.

---

## **Approver Types: Explained**

You can include any number of approvers of various types in your approval sequence. This topic explains each of the approver types.

### **Managers**

You can include the following predefined types of managers in your approval sequence:

- Line manager
- Resource manager
- Project manager
- Regional manager

If your enterprise defines additional types of managers, then they appear automatically in the Approvers section of the Manage Approval Rules page and you can include them in the approval sequence.

### **Approval Groups**

You create approval groups using Oracle BPM Worklist. When defining your approval sequence, you can enter the names of one or more existing approval groups.

### **Users**

You can include one or more Oracle Fusion Applications users in the approval sequence.

## Responsibility Holders

You can include holders of the following predefined responsibilities in your approval sequence:

- Human resources representative
- Benefits representative
- Union representative
- Payroll representative

If your enterprise defines additional responsibility types, then they appear automatically in the Approvers section of the Manage Approval Rules page and you can include them in the approval sequence.

Human resource specialists assign responsibilities to workers using the Manage Areas of Responsibility task. A worker becomes an approver for a transaction if he or she has that responsibility for the transaction subject. For example, if you specify that the benefits representative is an approver for a promotion, then the benefits representative of the worker who is being promoted is invited to approve the promotion.

## Positions

If you include a position hierarchy in your approval sequence, then position holders are invited to approve the transaction. For positions with more than one position holder, the transaction is approved by the first position holder to approve.

# HCM Approval Rules: Explained

When using the Manage Approval Rules and Notifications interface, you can specify one or more approval rules for each approver type. To create additional approval rules, you either add a new rule or duplicate a selected rule and edit it as appropriate. When you create multiple approval rules for an approver, they are evaluated individually in an undefined order.

Approval rules comprise one or more IF statements and one THEN statement.

## IF Statements

IF statements are tests that determine when an approval rule takes effect. For example, you could specify that an approval rule for a promotion takes effect when the worker's department is Sales or the worker's job is Area Manager. The values in the IF statement are those belonging to the worker's proposed new assignment.

You can specify multiple IF statements. If you join multiple statements with "and" operators, then all statements must be true before the approval rule takes effect. If you join multiple statements with "or" operators, then only one of the statements must be true before the approval rule takes effect.

## THEN Statements

THEN statements determine:

- How individual approvers of the specified type are identified
- Any actions that approvers are expected to take

The following table summarizes the approval actions.

Approval Action	Description
Approval required	Notifications are issued to the identified approvers and their response is required.
Automatic approval	No notifications are issued to the identified approvers. The transaction is either approved or rejected automatically, and the approvers are recorded as having approved or rejected the transaction. The value of the <b>Set Outcome To</b> attribute for manager hierarchies determines whether the transaction is approved or rejected.
FYI only	Notifications are issued to the identified approvers, but no response is expected.
No approval required	No notifications are issued and no approval is recorded for the transaction.

How individual approvers are identified depends on the approver type. For example, if the selected approver type is a project manager hierarchy, the THEN statement determines:

- How the project manager hierarchy itself is identified
- How the first approver in the manager hierarchy is selected
- How many levels of the manager hierarchy above the first approver are included

Available attributes and default values, if any, vary with the approver type.

## Manager Approval-Rule Attributes

When you define approval policies using the Manage Approval Rules and Notifications interface, you can create one or more approval rules for manager hierarchies of predefined and locally defined types. This topic describes the values that you can specify in the THEN statements of approval rules for manager hierarchies.

The following table summarizes the attributes of the manager-hierarchy approval rules and their default values.

Attribute Name	Values	Default Value
Initial Approver	<ul style="list-style-type: none"> <li>• Requester's first-level manager</li> <li>• User</li> </ul>	Requester's first-level manager
Number of Levels	1 or higher	<ul style="list-style-type: none"> <li>• 2, for line-manager hierarchies</li> <li>• 1, for other types of manager hierarchies</li> </ul>

Topmost Approver	<ul style="list-style-type: none"> <li>• Requester's first-level manager</li> <li>• Requester's second-level manager</li> <li>• User</li> </ul>	<ul style="list-style-type: none"> <li>• Requester's second-level manager, for line-manager hierarchies</li> <li>• Requester's first-level manager, for other types of manager hierarchies</li> </ul>
Initial Approvers to Skip	0, 1, 2	0
Set Outcome To	<ul style="list-style-type: none"> <li>• Approve</li> <li>• Reject</li> </ul>	Approve

### ***Approval-Rule Attributes for Manager Hierarchies***

#### **Initial Approver**

Identifies both the first approver and the manager hierarchy. By default, approval requests are sent to the requester's first-level manager, and the manager hierarchy is the one associated with the requester's primary assignment. The requester is the worker who submits the transaction.

If you select a user as the initial approver, then the manager hierarchy is the one associated with that user's primary assignment. For example, when promoting one of your direct reports you could select as initial approver a human resource (HR) specialist who is outside your manager hierarchy; approval requests from this rule would be directed to the manager hierarchy of the HR specialist's primary assignment.

If you select a user who is not a manager, then the rule fails.

#### **Number of Levels**

Controls how far up the selected manager hierarchy approval requests are sent. The first level is based on both the **Initial Approver** and the **Initial Approvers to Skip** values. For example, if you set **Number of Levels** to 3 and **Initial Approvers to Skip** to 2 when the initial approver is the requester's first-level manager, then approval requests are sent to levels 3, 4, and 5 of the manager hierarchy.

Approval routing stops when either the number of levels or the topmost approver is reached, whichever occurs first.

#### **Topmost Approver**

Specifies an approver above whom approvals are not routed.

Approval routing stops when either the number of levels or the topmost approver is reached, whichever occurs first.

For the topmost-approver value, you can select:

- A different manager (first-level or second-level, as appropriate).
- A user who is a manager from the same manager hierarchy as the initial approver.

If you select a user who is not a manager or is from a different manager hierarchy from the initial approver, then the topmost approver is not found. In this case, routing of approvals stops when the number-of-levels value is reached.

### Initial Participants to Skip

Allows you to start the approval process at a level above the initial approver in the manager hierarchy. For example, if the initial approver is the requester's first-level manager and you set **Initial Participants to Skip** to **2**, then the first approval request is sent to the requester's third-level manager.

### Set Outcome To

Specifies the outcome for automatic approvals. If you set this value to **Approve**, then all identified approvers are recorded as having approved the transaction, even though the approval is automatic. Similarly, if you set this value to **Reject**, then all identified approvers are recorded as having rejected the transaction.

## Position-Hierarchy Approval-Rule Attributes

When you define approval policies using the Manage Approval Rules and Notifications for Human Capital Management interface, you can create one or more approval rules for a specified position hierarchy.

The following table summarizes the attributes of the position-hierarchy approval rules and their default values.

Attribute Name	Values	Default Value
Number of Levels	Minimum and maximum values relative to: <ul style="list-style-type: none"><li>Initial approver</li><li>Requester</li></ul> Absolute minimum and maximum values	At most 1 relative to initial approver At least 1 relative to initial approver
Position Hierarchy	All position hierarchies in the enterprise	None
Initial Approver	All positions in the selected position hierarchy	None
Topmost Approver	All positions in the selected position hierarchy	None

### *Approval-Rule Attributes for Position Hierarchies*

#### Number of Levels

The number of job levels. Approvals are routed to approvers between the initial and topmost approvers in the position hierarchy based on this value.

You can specify the job levels as absolute values (for example, a minimum of 2 and a maximum of 4). Alternatively, you can specify the values relative to either the initial approver or the requester. The requester is the person who submits the transaction.

Approval routing stops when either the number of job levels or the topmost approver is reached, whichever is sooner.

#### Position Hierarchy

The name of the position hierarchy. Select from all position hierarchies in the enterprise.

#### **Initial Approver**

The position of the first approver.

The approval notification is sent to all workers who have the position, and the transaction is approved by the first worker to approve.

#### **Topmost Approver**

The position of the topmost approver.

The approval notification is sent to all workers who have the position, and the transaction is approved by the first worker to approve.

Approval routing stops when either the number of levels or the topmost approver is reached, whichever is sooner.

## **Defining an HCM Approval Policy: Worked Example**

This example shows how to define an approval policy for employee hires in the Sales department using the Manage Approval Rules and Notifications for Human Capital Management task.

The following table summarizes key decisions for this scenario.

<b>Decisions to Consider</b>	<b>This Example</b>
Who will approve employee hire requests?	<ul style="list-style-type: none"><li>Managers in the Sales department.</li><li>The human resources representative of any new hire does not need to approve but is informed of the hire after the relevant manager has approved.</li></ul>
Which approval actions must approvers take?	<ul style="list-style-type: none"><li>Managers must approve the hire.</li><li>The human resources representative receives an approval notification for all hires, but no response is needed.</li></ul>
Can the required level of management approval vary?	<p>The required level of approval varies with the grade of the new hire.</p> <p>The requester's:</p> <ul style="list-style-type: none"><li>First-level manager approves the trainee grades 1 through 3</li><li>Second-level manager approves the professional grades 4 through 6</li><li>Third-level manager approves the senior grades 7 and above</li></ul>

## **Summary of the Tasks**

To define the approval policy in this example, you:



1. Navigate to the Manage Approval Rules: Hire an Employee page.
2. Assemble the approval sequence.
3. Define the approval rule for trainee grades.
4. Define the approval rule for professional grades.
5. Define the approval rule for senior grades.
6. Define the approval rule for all grades.

## Navigating to the Manage Approval Rules: Hire an Employee Page

1. On the All Tasks tab of the Overview page of the Setup and Maintenance work area, search for the task Manage Approval Rules and Notifications for Human Capital Management.
2. In the Search Results region, click **Go to Task**.
3. On the Manage Approval Rules and Notifications page, enter the search term Hire in the **Name** field.
4. Click **Search**.
5. In the Search Results region, select the task name Hire an Employee.

## Assembling the Approval Sequence

1. On the Manage Approval Rules: Hire an Employee page, confirm that an entry for Line Manager appears in the Approval Sequence region.
2. In the Approvers region, click the **Add** icon on the Human Resources Representative entry to add it to the right of the Line Manager entry in the Approval Sequence region.

## Defining the Approval Rule for Trainee Grades

1. In the Approval Sequence region, select the Line Manager entry.
2. In the Rules region, click the **Edit** icon to edit the rule settings.
3. In the **Name** field of the **Edit Rule Settings** window, enter the rule name SalesHiresTraineeGrades. (The name cannot contain spaces.)
4. In the IF statement for the SalesHiresTraineeGrades rule, click the **Add** icon to the right of the first condition to create an additional condition.
5. Complete the fields of the two condition statements as shown in this table.

Attribute Name	Operator	Attribute Value	And or Or
Department	==	Sales	and
Grade	<=	3	

6. In the THEN statement for the SalesHiresTraineeGrades rule, complete the fields as shown in this table.

Field	Value
Action	Approval required

<b>Initial Approver</b>	Requester's first-level manager
<b>Number of Levels</b>	1
<b>Topmost Approver</b>	Requester's first-level manager
<b>Initial Approvers to Skip</b>	0

## Defining the Approval Rule for Professional Grades

1. Click **Add Rule**.
2. In the Rules region for the new rule, click the **Edit** icon to edit the rule settings.
3. In the **Name** field of the **Edit Rule Settings** window, enter the rule name SalesHiresProfessionalGrades.
4. In the IF statement for the SalesHiresProfessionalGrades rule, click the **Add** icon to the right of the first condition twice to create two additional conditions.
5. Complete the fields of the three condition statements as shown in this table.

Attribute Name	Operator	Attribute Value	And or Or
Department	==	Sales	and
Grade	>	3	and
Grade	<=	6	

6. In the THEN statement for the SalesHiresProfessionalGrades rule, complete the fields as shown in this table.

Field	Value
<b>Action</b>	Approval required
<b>Initial Approver</b>	Requester's first-level manager
<b>Number of Levels</b>	1
<b>Topmost Approver</b>	Requester's second-level manager
<b>Initial Approvers to Skip</b>	1

## Defining the Approval Rule for Senior Grades

1. Click **Add Rule**.
2. In the Rules region for the new rule, click the **Edit** icon to edit the rule settings.
3. In the **Name** field of the **Edit Rule Settings** window, enter the rule name SalesHiresSeniorGrades.
4. In the IF statement for the SalesHiresSeniorGrades rule, click the **Add** icon to the right of the first condition to create an additional condition.

5. Complete the fields of the two condition statements as shown in this table.

Attribute Name	Operator	Attribute Value	And or Or
Department	==	Sales	and
Grade	>	6	

6. In the THEN statement of the SalesHiresSeniorGrades rule, complete the fields as shown in this table.

Field	Value
Action	Approval required
Initial Approver	Requester's first-level manager
Number of Levels	1
Topmost Approver	Requester's first-level manager or Requester's second-level manager
Initial Approvers to Skip	2

---

#### Note

The value of the **Topmost Approver** attribute has no effect on this rule because the first-level and second-level managers are below the initial approver identified by the rule (the requester's third-level manager). To identify a manager above the requester's third-level manager, you would specify a named user from the same manager hierarchy (for example, the organization's CEO) as the topmost approver.

---

## Defining the Approval Rule for All Grades

1. In the Approval Sequence region, select the Human Resources Representative entry.
2. In the Rules region for the new rule, click the **Edit** icon to edit the rule settings.
3. In the **Name** field of the **Edit Rule Settings** window, enter the rule name SalesHiresAll Grades.
4. In the IF statement for the SalesHiresAllGrades rule, complete the fields of the condition statement as shown in this table.

Attribute Name	Operator	Attribute Value
Department	==	Sales

5. In the THEN statement of the SalesHiresAllGrades rule, complete the fields as shown in this table.

Field	Value
Action	FYI only

User	Worker's representative
------	-------------------------

6. Click Submit.

## FAQs for Define Approval Management

### How do I define the approval policy for a task?

On the Manage Approval Rules page for a supported task, such as Hire an Employee, begin by deciding who will approve transactions. Using either drag and drop or the **Add** action, move those approvers from the Approvers section to the approval sequence and arrange them in the required order. By default, an approver is added to the sequence immediately following the currently selected approver, but you can use drag and drop to change the approver order. When you have defined the approval sequence, select the first approver in the approval sequence to display any predefined approval rule for that approver type. You can edit the displayed approval rule and create additional approval rules, as appropriate. Edit the rule settings to specify a name for each rule. Define approval rules for the remaining approvers in the approval sequence. When you have defined the approval rules for all approvers, submit the approval policy.

### What happens if I edit or delete an approval rule?

If you edit or delete an approval rule on the Manage Approval Rules page, then approvals currently in progress complete as if the rule had not been edited or deleted.

New approvals follow the latest version of the rule.

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# Common Applications Configuration: Define Application Toolkit Configuration

## Define Application Toolkit Configuration: Overview

Oracle Fusion Application Toolkit (ATK) is an application that provides various core components of Oracle Fusion Applications, including the Welcome dashboard, Oracle Fusion Applications Help, the Reports and Analytics pane, and the Watchlist feature. Use the Define Application Toolkit Configuration task list to set up and maintain some of these components for all users, and the Define Help Configuration task list for Oracle Fusion Applications Help.

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### Note

The Define Application Toolkit Configuration task list is available in implementation projects only if the Application Toolkit Component Maintenance feature choice is selected.

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Use the Setup and Maintenance work area to access the tasks in the Define Application Toolkit Configuration task list.

## Map Reports to Work Areas

### Additional Report Setup in the Context of the Reports and Analytics Pane: Highlights

Aside from determining which work areas a specific report is mapped to, you can perform additional setup for reports in the context of the Reports and Analytics pane. You can set up report permissions, and enable Oracle Business Intelligence (BI) Publisher reports for scheduled submission.

This additional setup is described in the Oracle Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition) and the Oracle Fusion Applications Extensibility Guide.

#### Report Permissions

- You can restrict access to specific reports for specific users, and this security is not limited to the Reports and Analytics pane. Refer to the

Oracle Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition).

See: Assigning Permissions

### Oracle Business Intelligence Publisher Reports Submission

- Oracle BI Publisher reports must be registered as processes with Oracle Enterprise Scheduler to be enabled for scheduling. This registration also enables a Schedule link for the report in the Reports and Analytics Pane. Refer to the Oracle Fusion Applications Extensibility Guide, and perform the following steps in the specified order.
  - Create an Oracle Enterprise Scheduler job definition for the report.  
See: Tasks Required to Run Custom Reports with Oracle Enterprise Scheduler Service
  - Specify the job definition details in the report's properties.  
See: Enabling Reports for Scheduling from the Reports and Analytics Pane

## FAQs for Map Reports to Work Areas

### How can I set up the Reports and Analytics pane for all users?

You can remove any currently mapped report from the Reports and Analytics pane, or add mappings to reports from the Oracle Business Intelligence (BI) Presentation catalog. To access the setup, click **Edit Settings** in the Reports and Analytics pane, or use the Map Reports to Work Areas task in the Setup and Maintenance work area. If you do the former, then you can set up only the Reports and Analytics pane on the work area that you are in.

If you do the latter, then you can select a work area to set up. If you do not see the desired work area, most likely you do not have access to it due to security. You can request to be granted a role that has access to the work area, or another administrator or business user with access to the work area can be granted the Reports and Analytics Region Administration Duty to be able to map reports to the work area.

---

#### Tip

On the Map Reports to Work Areas page only, you can also use the Synchronize button to remove mappings to reports that are no longer in the catalog, for all work areas at once.

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Any changes you make in either UI apply to all users with access to the mapped work area.

### Why can't I see reports when mapping reports to work areas for the Reports and Analytics pane?

It is possible that there are no reports currently mapped to the work area that you select in the Map Reports to Work Areas page. Alternatively, reports are mapped, but you do not see them due to security.

Similarly, in the list of all available reports from the catalog, you can see only the reports that you have access to. You can request to be granted a role that has access to the reports that you want to map, or another administrator or business user with access to those reports can be granted the Reports and Analytics Region Administration Duty to be able to map reports to work areas.

### **Why can't I see reports when I edit settings for the Reports and Analytics pane?**

In the Edit Settings window, you may not be able to see a currently mapped report because you do not have access to it due to security.

Similarly, in the list of all available reports from the catalog, you can see only the reports that you have access to. You can request to be granted a role that has access to the reports that you want to map, or another administrator or business user with access to those reports can be granted the Reports and Analytics Region Administration Duty to be able to map reports to work areas.

## **Set Watchlist Options**

### **Watchlist Setup: Points to Consider**

For all users across the site, you can disable or enable predefined Watchlist categories and items, edit their names, and determine how often item counts refresh. You cannot delete predefined Watchlist categories and items, nor create any for the site. Users can create their own Watchlist items through saved searches.

Access the Set Watchlist Options page by starting in the Setup and Maintenance Overview page and searching for the Set Watchlist Options task.

#### **Disabling Predefined Categories and Items**

Use the Set Watchlist Options page to enable or disable predefined Watchlist categories and items. Disabling any category or item also disables associated processes involved in calculating the Watchlist item counts for all users. These processes include creating data caches, performing security checks, invoking services across domains, running queries, and so on.

An item with the **Predefined** type represents the actual predefined Watchlist item that appears in the Watchlist. If you disable this type of Watchlist item, then:

- The item is not available for users to display in their watchlist
- The item is removed from any watchlist where it is currently displayed

A Watchlist item with the **User-created saved search** type does not appear in the Watchlist; it controls the display of the **Manage Watchlist** button or menu item in pages with saved searches. If you disable this type of Watchlist item, then:

- The **Manage Watchlist** option is not available to users in the corresponding work area, so users cannot use their own saved searches as

Watchlist items. A message is displayed to users when they try to use this option.

- Any user-defined saved searches from that work area already used as Watchlist items are no longer available in the users' watchlist. The user-defined saved searches are still available to be used for searching, but not for the Watchlist.

If you disable a Watchlist category, then the category is not available for users to include in their watchlist, and all Watchlist items within the category are also disabled.

Ultimately, the Watchlist for any user contains the subset of categories and items that are enabled in the Set Watchlist Options page:

- Plus any items based on user-defined saved searches
- Minus any categories or items that the user chooses to hide using Watchlist preferences
- Minus any items with no results found, if the user chooses to hide such items using Watchlist preferences

## Specifying Refresh Intervals

All Watchlist items have a predefined refresh interval, which controls how often the query that calculates the count for a Watchlist item can be run. Use the Set Watchlist Options page to edit the interval values. What you specify as the refresh interval for a Watchlist item of type User-created Saved Search applies to all Watchlist items based on saved searches created by users on the corresponding search page.

When the user is in the Welcome dashboard with the Watchlist open for at least two and a half minutes, the query automatically runs for all Watchlist items if no refresh already ran in this user session. To subsequently run the query again, users can manually refresh the Watchlist region. The **Refresh** icon is enabled after five minutes since the last refresh.

---

### Note

During a refresh, the query runs for an individual Watchlist item only if the time since the last query for this item is equal to or greater than the specified refresh interval. Since the manual refresh of the entire Watchlist is not available until five minutes after the last refresh, you should not set a Watchlist item refresh interval that is less than five minutes.

---

When users open Watchlist from the global area, a refresh automatically runs if five minutes have passed since the last refresh. During this refresh, the query runs for an individual Watchlist item only if the time since the last query for this item is equal to or greater than the specified refresh interval.

For example, you set the interval to eight minutes for a particular Watchlist item. When the user signs in and goes to the Welcome dashboard, with the Watchlist open, the query automatically runs for this Watchlist item after two and a half



minutes. Every two and a half minutes after, a check is performed for stale counts and new cached counts are displayed.

Five minutes after the query ran, the **Refresh** icon is enabled and the user performs a manual refresh. However, the query does not run for this Watchlist item, because the refresh interval is eight minutes. The user navigates away from the Welcome dashboard and opens the Watchlist from the global area six minutes later. A refresh automatically runs because more than five minutes have passed since the last refresh. This time, the query runs for this Watchlist item because it has been more than eight minutes since the query last ran for this item.

### **Editing Predefined Category and Item Names**

Predefined Watchlist category and item names are stored as meanings of standard lookups. Lookup types for predefined categories end with WATCHLIST, for example EXM\_EXPENSES\_WATCHLIST. Edit the lookup type meaning to change the category name. To change item names, edit lookup code meanings for that lookup type.



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## Define Help Configuration

### Define Help Configuration: Overview

The Define Help Configuration task list contains tasks that let you set up and maintain Oracle Fusion Applications Help for all users. Use the Set Help Options task to determine if certain aspects of Oracle Fusion Applications Help are available to users and to control how aspects of the help site work. Use the Assign Help Text Administration Duty and Manage Help Security Groups tasks to set up customization of help content.

After performing the help configuration tasks, you can review the predefined help and consider whether to add or customize any content. You can also customize help that is embedded in the application, for example hints and help windows, using other tools such as Oracle JDeveloper and Oracle Composer.

Use the Setup and Maintenance work area to access the tasks in the Define Help Configuration task list.

### Set Help Options

#### Help Feature Choices and Help Options: Points to Consider

Help feature choices on the Configure Offerings page in the Setup and Maintenance work area control the look and behavior of Oracle Fusion Applications Help, and also determine which help options are available. Help options are setup options on the Set Help Options page.

##### Local Installation of Help

Select the Local Installation of Help feature choice so that the Define Help Configuration task list appears in your implementation project, and you can select two additional features (Access to Internet-Based Help Features and Help Customization) to control the fields available on the Set Help Options page.

##### Access to Internet-Based Help Features

Select this feature choice to provide users access to features that involve navigation to sites on the Web. If you select this feature choice, then the Web Sites Available from Help Site section is available on the Set Help Options page.

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## Important

Some help includes links to the Oracle Fusion Applications Technology Library. If you select this feature, then these links open the library on the Oracle Technology Network Web site. If you do not select this feature, then your service administrator (Oracle Cloud implementations) or system administrator (other implementations) must download the library from Oracle Technology Network (<http://www.oracle.com/technetwork/documentation/default-1577155.html>) and put all the content from within the extracted folder (for example E28271\_01) directly into the appmgr/APPLTOP/fusionapps/applications/ahc/afh/reference/TechLib folder.

---

## Help Customization

Select the Help Customization feature choice if you intend to customize predefined help or add your own files to help. For example, you can add internal policies or procedures as help, and Oracle User Productivity Kit content, if any. Not selecting this feature choice only hides the relevant setup options; help customization is not disabled for users with customization access. To disable help customization, remove the Oracle Fusion Help Text Administration duty from the job roles where it is predefined.

If you select this feature choice, then the Custom Help Security feature choice is available, as well as all these sections on the Set Help Options page:

- Custom Help
- User Productivity Kit
- Privacy Statement

## Custom Help Security

Select this feature choice if you want certain help files to be available only to a restricted set of users. You can define the user groups allowed to view corresponding help files. Do not select this feature choice if you do not have this requirement, because the feature can have an impact on performance.

If you select the Custom Help Security feature choice, then the Manage Help Security Groups task is available in the Define Help Configuration task list in your implementation project. There are no help options associated with this feature choice.

# Administering Collaboration Features and Announcements in Help: Points to Consider

Announcements and collaboration features (discussions, ratings and comments) allow users to share information regarding help and the subjects that particular help files cover. The collaboration features are also used elsewhere in Oracle Fusion Applications. Discussions may not be available in Oracle Cloud implementations.

Use the Set Help Options page in the Setup and Maintenance work area to enable the announcements and discussions features and to set options about

ratings. When administering these features, consider the purpose of each feature and points that are specific to Oracle Fusion Applications Help.

## Announcements

Use announcements to broadcast information to all users of your help site. You can provide information about help, for example new custom help that was recently added, or about anything that users should take note of, for example a change in company policy. Announcements can appear on any of the tabs on the home page of Oracle Fusion Applications Help. You can target specific user groups by posting announcements to specific tabs, for example, posting information related to implementation to the Functional Setup tab.

Only users with the Oracle Fusion Help Text Administration duty role have access to the Manage Announcements icon button in the Announcements sections. They can create, edit, and delete announcements for the tab that they are on, and set the date range for when each announcement is to be displayed.

## Discussions

Users can use discussions to post questions or comments about subjects covered in specific help files. For example, after reading help on expense reports, users might have questions or comments about company policies or processes for expenses. Other users who later access this help file would benefit from the information in the discussion.

You can set a help option to enable discussions. Each help file would contain a **Discuss** link that all users can use to read discussions about that file. They can also start a discussion topic or post to existing topics. These discussions are visible only to users in your enterprise.

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### Important

Do not enable discussions until servers for discussions are up and running.

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Only users with the appropriate administrator role can moderate discussions. For more information on granting the administrator role on the discussions server, see the Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter Portal.

## Ratings and Comments

Users can rate any help file on a five star system and provide feedback about the content. This information is helpful to other users in deciding which help file to open. Help files with a higher average rating are listed first in help windows, and in the help listings you see as you browse using the help navigators.

The scope of ratings and reviews is limited to your enterprise.

## FAQs for Set Help Options

### When do I link to the Oracle User Productivity Kit library from the help site?

Provide a link to your Oracle User Productivity Kit (UPK) library if you have UPK licensed and custom UPK content to share with your users. You give them

access to a library of custom UPK content in addition to any custom UPK demos that you added to the help site itself. UPK demos that you add as custom help are available only in the See It mode, so the library can include the same demo in other modes. If you have UPK versions earlier than 3.6.1, then you cannot add UPK demos as custom help, so the link is the only way for users to access custom UPK content from the help site.

### How can I find the URL to the Oracle User Productivity Kit library?

The URL to enter on the Set Help Options page should be the full path from the Web server where you are hosting your Oracle User Productivity Kit (UPK) content to the index.html file that opens the table of contents for the library, for example, <http://<your domain>.com/UPKcontent/PlayerPackage/index.html>. In this example, you or your UPK administrator would publish one UPK player package that contains all the content to be linked to from Oracle Fusion Applications Help, as well as the index.html file, and place the PlayerPackage folder in a manually created folder called UPKcontent on the Web server.

## FAQs for Assign Help Text Administration Duty

### Who can add and manage custom help?

Users with the Oracle Fusion Help Text Administration duty role have access to customize help in Oracle Fusion Applications Help. This duty is assigned by default to various job roles, in particular the administrators for product families.

You can assign the duty role to other users who need access to customize help. Use the Manage Duties task in the Setup and Maintenance work area to search for the Oracle Fusion Help Text Administration duty role on the Role Catalog page, and map additional job roles to this duty role.

## Manage Help Security Groups

### Creating Help Security Groups: Worked Example

This example demonstrates how to create a help security group to define a set of job roles that have access to help. The help security group can then be assigned to particular help files so that only users with any of the defined roles have access to the help.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What type of users do you need to limit help access to?	Human resources (HR) specialists
Is there a specific time period for which this access is needed?	No, the help files should always be viewed only by the HR specialists
Where do you want this group to appear in the list of values for help security groups?	First

Define a help security group and assign a duty role to the group.

1. From the Setup and Maintenance work area, find the Manage Help Security Groups task and click **Go to Task**.
2. On the Manage Help Security Groups page, add a new row.
3. Complete the fields, as shown in this table. Leave the start and end dates blank.

Field	Value
Help Security Group	HR
Meaning	HR Only
Description	Viewing by HR specialists only
Display Sequence	1

4. Click **Save**.
5. With your new help security group selected, go to the Associated Roles section and add a new row.
6. Select **PER\_HUMAN\_RESOURCE\_SPECIALIST** as the role name.
7. Click **Save and Close**.

You have created a new lookup code for the Help Security Groups lookup type, which is a standard lookup. The lookup code has the name, meaning, and description that you defined for the help security group.

You have also created a data security policy for the help database resource, specifying that the Human Resource Specialist role can view help that is defined with the HR security group. If you go to the Manage Database Resources and Policies page and find the database resource, or object, ATK\_KR\_TOPICS, then you can see the policy for the Human Resource Specialist role, with the condition that the column name, SECURITY\_CODE, is equal to the value HR.

## Help File Customization

### Help File Customization: Overview

If you have the appropriate job roles, then you can customize the help files in the help site. Use the Manage Custom Help page to maintain both predefined and custom help files. You can create, duplicate, edit, and delete custom files, or set their status to Active or Inactive. For predefined files, you can only duplicate them or set their status. For each help file, predefined or custom, use help locations to determine where the help file appears in the application and in the help site. You have various options in how you add custom help, for example by uploading a file or specifying a URL.

---

#### Note

To make a copy of all custom help for testing, migration, or other purposes, use the export and import feature in the Setup and Maintenance work area.

---

There are various ways to access help customization.

- Many help files can be accessed from help windows in the application. If you want to customize help in the context of a help window, for example create a custom help file and add a link to it from a specific help window, then start by opening that help window. When you click the **Manage Custom Help** link, you go to the Manage Custom Help page, and the help location fields are automatically populated with values that correspond to the help window. This way you can easily select existing files to add to the same help location, and when you create a new file, the same help location appears by default.
- Open the Manage Custom Help page directly from the home page of Oracle Fusion Applications Help or from search result pages.
- To edit a specific file, you can either find it in the Manage Custom Help page, or open the file itself and click the **Edit** link.
- Likewise, you can find glossary terms in the Manage Custom Help page, or click the **Glossary** link in the global area to open the Glossary tab, search for the term, and click **Edit**.

---

#### Note

When you search in the Manage Custom Help page, make sure that the **Custom Help Only** check box is not selected if you are looking for predefined help.

---

If your enterprise has purchased Oracle User Productivity Kit (UPK) content, then your administrator can also add a **UPK** item to the **Help** menu in the global area of Oracle Fusion Applications. When users select this menu item, they access UPK content specific to the page that they are on.

## Help Types: Explained

Oracle Fusion Applications Help contains various types of help content, including demos, examples, FAQs, glossary terms, help topics, and PDF guides. A business process or product can be supported by some or all of these help types.

### Demo

Demos are Oracle User Productivity Kit (UPK) topics that visually demonstrate how to use the application to complete a short task or portion of a task. Demos can also provide an introduction to complex dashboards and work areas.

### Example

Examples provide real use cases of features to illustrate how and when to use the feature, or scenarios to illustrate abstract concepts. Worked examples show



exactly what you need to do to achieve a specific result, emphasizing decisions that you make and values that you enter.

## FAQ

FAQs, or frequently asked questions, provide brief answers to questions that you might have regarding a task or page. For example, they can briefly explain what a term means, why something happened, how you can perform an action, or what happens if you perform the action.

## Glossary

Glossary terms provide definitions for words or phrases used in help. You can search or browse glossary terms in the Glossary tab of Oracle Fusion Applications Help. Where the links are available, you can also see the definition when you hover over the term in help content for other help types.

## Help Topic

Help topics explain key concepts, illustrate how application components work together, or assist in decision-making by explaining points to consider or the options you have. Help topics can also provide reference, overview, and other information.

## PDF Guide

PDF guides present a collection of help content from the other help types, except demos, in an organized and logical format. For example, there are guides addressing specific business processes and setup offerings. You can see lists of all guides from the **Guides** menu in Oracle Fusion Applications Help.

# Help Locations: Explained

Help locations determine where users can find help files, custom or not, from either the application or the help site.

Help locations include:

- Page or section values
- Help hierarchies
- Primary locations

## Page or Section Values

The value in the **Page or Section** field on the help customization pages represents where users can click a help icon to open a help window that contains a link to the help file. In most cases, this value represents a page or region header in the application. Help windows are also available on specific tabs or windows, and in the Setup and Maintenance work area for specific task lists or tasks. You can associate a help file with multiple page or section values, or with none at all.

The page or section value reflects the logical navigation to the help window. For example, **Edit Opportunity page, Revenue tab, Recommendations window** does not mean that the help file is available in three different places. The help icon is in the Recommendations window, which is accessed from the Revenue tab on the Edit Opportunity page.

If the value suggests multiple locations, for example **Create and Edit Opportunity pages**, then the help file is available from the page header of both the Create Opportunity and Edit Opportunity pages. If the page or section value is, for example, a dashboard region that appears in multiple dashboards, then the value does not specify the page name but just the region. The help file is available from that region in multiple dashboards.

## Help Hierarchies

Help files are associated with help hierarchies, which are used to categorize help files and aid users in finding help. Each help file can have multiple hierarchies, with at least one of type Business Processes. The business process hierarchy is based on the Business Process Management model. Every page or section value is predefined with a specific business process hierarchy. If you select a page or section without entering a business process hierarchy, the predefined hierarchy appears by default.

The Search by Business Process navigator in the help site is based on the business process hierarchy. For example, if you assign two business process hierarchies to a help file, users can find the file in both locations in the navigator. When the user clicks **More Help** from a help window, all help files assigned to the same business process hierarchy as the page or section value are returned as search results.

Similarly, the Search by Product navigator is based on the Product hierarchy type, in which level 1 is the product family, level 2 is the product, and level 3 is the business activity owned by that product.

The Search by Functional Setup navigator is based on the Functional Setup hierarchy type. The level 1 nodes for this hierarchy are:

- Functional Setup Manager, which includes help about using the Setup and Maintenance work area.
- Guides, which contains level 2 nodes that correspond to business areas and setup offerings. All the user reference and functional setup PDF guides are included.
- Offerings, which contains level 2 nodes for each setup offering, and lower levels for the main task lists in the offerings. Help for the task lists and tasks are included.

The Search by Common Tasks navigator is based on the Welcome hierarchy type. The level 1 nodes represent categories of functional areas common to all users.

## Primary Locations

The primary location of a help file designates the hierarchy that is displayed for the help file in search results and within the help content as breadcrumbs.

You cannot change the primary location of a help file that came with your help installation. Primary locations of predefined help are based on the business process hierarchy, while custom help files can have primary locations based on hierarchies of any type.

## Editing Predefined Help and Glossary Terms: Points to Consider

When you open any predefined help file, including glossary terms, that came with Oracle Fusion Applications Help, you can see an edit option if you have roles allowing edit access. When you edit predefined help, keep in mind:

- What happens to the original help file
- Where predefined help appears
- Considerations specific to glossary terms

### What Happens to the Original Files

When you edit predefined help, you are actually creating a new custom help file based on the original file, with the same help locations. The customized version replaces the original, which becomes inactive and hidden from users. You can display both versions by reactivating the original in the Manage Custom Help page.

---

#### Note

In the Search Results: Existing Help region on the Manage Custom Help page, there is no option to edit predefined help. You can duplicate a predefined help file, edit the copy, and optionally inactivate the original.

---

### Where Predefined Help Appears

All predefined help comes with preassigned help locations, including at least one based on the hierarchy of type Business Processes. Many also have predefined page or section values that indicate where the help can be accessed from help windows in the application.

To change where predefined help appears, either in the help site navigators or in the application, create a duplicate in the Manage Custom Help page. Change or add help locations to your custom copy, and inactivate the original.

Even though glossary terms do not appear in the help site navigators, you still need to enter at least one help location to categorize the glossary term.

### Considerations Specific to Glossary Terms

When you edit a predefined glossary term, the original term becomes inactive. Existing links to the glossary term, from other predefined and custom help files, will automatically point to your custom version. If you later inactivate the

custom glossary term, make sure to activate the original term so that the links still work.

## Links in Custom Help: Points to Consider

When you create or edit custom help, follow best practices when you include links to help files or other content. If you are working on custom help created by duplicating a predefined help file, then you may see existing links from the original file in the Help Content section. The types of links that you can work with include:

- Related help links
- Standard hypertext links
- Links to documentation library content
- Glossary term links

For all link types, except the standard hypertext links, you must create or edit custom help with a Text or Desktop source type. In other words, you must type the help content directly in the application or use an HTML file that you upload to help. For standard hypertext links, the source type can also be URL.

### Related Help Links

Related help is the section at the end of help files that contains links to other help files. The syntax for related help contains a comma-separated list of title IDs that represent help files.

This figure provides an example of related links code.

```
OfaRelatedTopics(CREATE_AUTOMATIC_POSTING_CRITERIA_S_0000,  
JOURNAL_ENTRIES_HOW_THEY_RE_RECORDER_0000)
```

- You can delete this code to remove all related help, or delete title IDs to remove individual links (for example, CREATE\_AUTOMATIC\_POSTING\_CRITERIA\_S\_0000).
- To replace existing links or add new links, you need to retain the code syntax and enter desired title IDs. To find title IDs, search for the help files on the Manage Custom Help page. Title IDs are displayed in the search results, but the **Title ID** column is hidden by default.

### Standard Hypertext Links

You can create standard hypertext links to any file or Web site as long as you ensure the stability and validity of the links, including links to other help files, custom or not. These links can appear anywhere in the body of your help file as long as they come before any related help links.

In the Help Content section, highlight the text that you want to use as link text and click the **Add Link** icon button.

For links to other help files, open the file to which you want to link, and click the **E-Mail** link. Use the URL in the autogenerated e-mail text as the link to the file.

## Links to Documentation Library Content

The syntax for links to HTML files in documentation libraries, for example the Oracle Fusion Applications Technology Library, is:

```
<span class="HP_topic-link_bridgeDocument-linkToSTDoc_"><?ofa  
linkToSTDoc(WCSUG4636) ?><span class="HP_topic-linktext_">Understanding  
Tags</span><?ofa endLink ?></span>.
```

WCSUG4636 is the anchor ID and Understanding Tags is the link text. You can:

- Modify the link by replacing the existing anchor ID or editing the link text, or both.
- Remove the link by deleting all the code for it.
- Create links to documentation library content by following the same syntax. These links can appear anywhere in the body of your help file as long as they come before any related help links.

---

### Important

To ensure that you are linking to a supported documentation library, enter anchor IDs only from documentation libraries that are linked from predefined help topics.

---

## Glossary Term Links

Glossary term links provide definitions in a note box when users hover over the term in help files.

This figure shows an example of code for a glossary term link.

```
OfaGlossaryTerm("accounting period", ACCOUNTING_PERIOD_0001)
```

In this example, `accounting period` is the link text, or glossary term, and `ACCOUNTING_PERIOD_001` is the identifier, or title ID.

- To remove the link but retain the text, delete all the code except the term itself.
- To add glossary term links, you must follow the link syntax and use the correct title ID for the glossary term. You can find title IDs in the search results of the Manage Custom Help page.

---

### Note

If your custom help has glossary terms and the source type is Desktop File, then make sure before uploading that the quotes around the glossary term are actual quotation marks in raw HTML, not `&QUOT`. Otherwise, quotation marks will appear when users view the help file.

---

## Customizing PDF Guides: Worked Example

This example demonstrates how to customize a PDF guide that came with Oracle Fusion Applications Help. This guide is currently not available from any help window in the application.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What changes do you need to make to the guide?	Change the title of a chapter and remove a section in that chapter, to hide content about a particular subject
Which help window should the customized guide appear in?	The help window for the entire Welcome dashboard of Oracle Fusion Applications
Which help navigators should the customized guide appear in, and on which node?	Same as the original guide, plus the path associated with the help window
Do you want to limit access to the customized guide?	No, same as the original guide

Edit a copy of the original PDF guide, and use the Manage Custom Help page to replace the original PDF guide with your new file.

### Copying and Editing the PDF Guide

1. Open the original PDF guide from the help site and save a copy to your desktop. Leave open the help file for the guide.
2. Using a PDF editor application, change the title of the chapter wherever the chapter title appears. Delete the content you want to hide from users.
3. Make sure that your new PDF guide is less than 6 MB.

### Replacing the Original PDF Guide

1. In the help file that you still have open for the original PDF guide, click the **Edit** link.
2. On the Create Help page, use the default values except where indicated.
3. Update the title to the name that you want to display to users.
4. In the **File Name** field, browse for and select your customized guide.
5. Delete any keywords or parts of the description relevant to the content you removed from the PDF guide.
6. Add a help location with the Business Processes hierarchy type and select **Information Technology Management** as the level 1 node, **Manage Enterprise Application Software** as the level 2 node, and **Use Applications** as the level 3 node.
7. Select **Welcome page** in the **Page or Section** column.
8. Click **Save and Close**. The help file for the original PDF guide is automatically set to inactive.

## Adding Custom UPK Content to Help: Worked Example

This example demonstrates how to add custom Oracle User Productivity Kit (UPK) topics as demo help files. These help files function like any predefined help file for demos. You can search and include these files in help windows and navigators as you would other help.

In this scenario, you are adding two demos about social networking, to appear in help windows on the Welcome dashboard.

---

### Note

Your demo must be made with UPK 3.6.1 or later to be added as help.

---

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What UPK content do you want to add to help?	From a UPK module containing five topics, add two as custom demos on the help site
Which help navigators should each demo appear in, and on which node?	Because the two demos are about social networking: <ul style="list-style-type: none"><li>• Search by Common Tasks navigator, under the Collaboration node</li><li>• Search by Business Process navigator, under <b>Information Technology Management - Manage Networking and Communications - Manage Social Networking Capabilities</b></li></ul>
Which help window should each demo appear in?	On the Welcome dashboard of Oracle Fusion Applications, one demo goes in the help window in the Activity Stream region, and the other in the People Connection region
Do you want to limit access to the help files for the demos?	No
Do you want the help files to appear in the New and Updated pane?	Yes

Generate a report of UPK document IDs, which you will use when creating custom help, to identify the UPK topics that you want to add. Publish the UPK module as a player package, then create custom help for the UPK topics that you want to use as help demos.

### Generating a UPK Document ID Report

1. In the UPK Developer, select **Details View**.
2. Right-click any column header, for example Name, and select **Column Chooser**.
3. In the Column Chooser dialog box, click and drag the Document ID column header and drop it after the Name column. Close the Column Chooser dialog box.
4. From the File menu, select to print, and save the output as a Microsoft Excel file to your desktop.

## Creating the Player Package

1. From the UPK Developer, make sure that the topics that you want to add as demos have the See It play mode. The topics can also have other modes, but only the See It mode is included in the custom help file.
2. Publish the module, specifying any location for the output and selecting to publish the selection only.
3. In the Formats section of the Publish Content window, select the **Player** check box under the **Deployment** check box group.
4. In the Player section, select the **Include HTML Web Site** check box, to ensure that the custom help file includes a text-only version of the UPK topic.
5. Finish the publishing process, after optionally setting other options.
6. Navigate to the location where you specified the output to be generated.
7. In the Publishing Content folder, copy the PlayerPackage folder and add it to the web server where you store UPK content.

## Creating Custom Help for Demos

1. Open the help window in the Activity Stream region on the Welcome dashboard of Oracle Fusion Applications, and click **Manage Custom Help**.
2. On the Manage Custom Help page, the page or section and hierarchy values are populated with the values for the Activity Stream region.
3. Click **Create**.
4. On the Create Help page, complete the fields in the General Information section, as shown in this table. Use the default values except where indicated.

Field	Value
Title	The name of the UPK topic.
Source Type	Oracle User Productivity Kit
File Location	The full URL of the player package folder on the Web server, for example, <code>http://&lt;your domain&gt;.com/UPKcontent/PlayerPackage</code> .
Document ID	The document ID of the UPK topic to add to the help window in the Activity Stream region. You can copy and paste this ID from the Microsoft Excel file that you generated earlier.
Help Type	Demo
Help Security Group	Unsecured
Keywords	Terms relevant to the demo.
Description	Summary of the demo.
Include in New and Updated pane	Selected



The Help Location section contains values for the help window in the Activity Stream region. This help file will also appear in the Search by Business Process navigator under this predefined hierarchy.

5. Click **Save and Close**.
6. On the Manage Custom Help page, open the help locations for the help file that you just created.
7. Add a help location with the Welcome hierarchy type and select **Collaboration Features** as the level 1 node.
8. Add another help location with the Business Processes hierarchy type and select **Information Technology Management** as the level 1 node, **Manage Networking and Communications** as the level 2 node, and **Manage Social Networking Capabilities** as the level 3 node.
9. Click **Save and Close**.
10. Starting at the Connections region, repeat steps 1 to 9 for the other UPK topic that you want to add.

## FAQs for Help File Customization

### How can I restrict help content to specific user roles?

When you create or edit help, select a help security group that represents the set of roles that you want to have access to the help. If you do not see the Security Group field, then your administrator has not selected the Custom Help Security feature choice. The Unsecured group has no associated roles, so anyone can view the help. The predefined Secured group includes all internal employees and contingent workers, unless this group has been edited. You can create security groups and associate roles using the Manage Help Security Groups page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Help Security Groups task. Your new security groups are immediately available for use to secure new or edited help files.

### Why can't I select and add help to a location?

You must specify a page or section to add the existing help to. To ensure that help is added to the correct help window, go to the page or section in the application, click the **Help** icon, and click the **Manage Custom Help** link in the help window. Alternatively, in the Manage Custom Help page, search for at least a page or section and a level 1 value for the Business Processes hierarchy type before selecting the **Select and Add** option.

You cannot select and add help to a particular hierarchy, on the Manage Custom Help page, without a page or section. To add just a hierarchy, search for the help file, add a new help location, and specify only the hierarchy information.

### What happens to custom help when a help patch is applied?

Oracle Fusion Applications Help patches update all help files, both active and inactive, except custom help. Custom help files are not affected by patches.

Consider reviewing inactive files to see if you want to activate the updated version, or to make similar edits to the custom versions of those files, if any.

## Embedded Help Customization

### Customizing Embedded Help: Highlights

You can customize help that is embedded in the application, for example hints and help windows, for all users of Oracle Fusion Applications.

Embedded help customization is fully described in the Oracle Fusion Applications Extensibility Guide.

- Edit, create, or delete hint text that appears on hover over buttons, links, icons, or tab titles.

See: Customizing or Adding Bubble Embedded Help

- Edit, create, or delete other types of embedded help.

See: Customizing or Adding Static Instructions, In-field Notes, Terminology Definitions, and Help Windows

---

## Common Applications Configuration: Maintain Common Reference Objects

### Maintain Common Reference Objects: Overview

The Maintain Common Reference Objects task list contains Oracle Fusion Middleware Extensions for Applications (Applications Core) tasks that support implementation of common behaviors, such as data security or reference data sets.

Use this task list to manage common reference objects that are defined centrally and shared across applications, in addition to those that are specific to Applications Core functionality. You can access this task list by starting in the Setup and Maintenance Overview page and searching for common reference object task lists.

---

#### Note

Offerings also include application-specific tasks for managing Applications Core objects. For example, the Financials offering includes tasks such as Manage Receivables Descriptive Flexfields, and Manage Receivables Lookups.

---

For more information on configuring custom objects, see the Oracle Fusion Applications Extensibility Guide.

To make the Maintain Common Reference Objects task list available in your implementation project, go to **Setup and Maintenance Overview - Configure Offerings**, and for a specific offering, select the Maintain Common Reference Objects feature choice.

### Define Application Taxonomy

#### Application Taxonomy: Highlights

Application taxonomy is the organization of Oracle application components and functions in a hierarchical structure, from product lines to logical business areas. This hierarchy represents a breakdown of products into units based on how applications are installed and supported. Maintain this hierarchy on the Manage

Taxonomy Hierarchy page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Taxonomy Hierarchy task.

A detailed introduction to application taxonomy is provided in the Oracle Fusion Applications Developer's Guide.

### **Hierarchy**

- The application taxonomy hierarchy contains various levels and types of nodes, or modules.

See: Characteristics of the Level Categories

See: Benefits of a Logical Hierarchy

### **Usage**

- Use application taxonomy to understand relationships among applications and between an application and its files. This information is helpful in managing various phases of the product lifecycle.

See: How to Manage the Lifecycle

## **Modules in Application Taxonomy: Explained**

A module is any node in the application taxonomy hierarchy. The top level of the hierarchy is product line, followed by product family, application, and logical business area. There can be multiple levels of logical business areas, with one or more nested within a parent logical business area.

### **Product Line**

A product line is a collection of products under a single brand name, for example, Oracle Fusion.

### **Product Family**

A product family is a collection of products associated with a functional area that may or may not be licensed together as a single unit, for example Financials.

### **Application**

An application is a single product within a product family, containing closely related features for a specific business solution, for example General Ledger.

### **Logical Business Area**

A logical business area is a collection of business object definitions organized into a logical grouping. It contains the model objects, services, and UI components for those business objects. Logical business areas have their own hierarchy levels and in some cases can be two or three levels deep. Each leaf node has at least one business object and service, up to a maximum of four business objects and associated services. A logical business area with more than four business objects are further refined with child logical business area levels.

Each of these parent-child levels is represented by a directory in the physical package hierarchy.

## Managing Modules in Application Taxonomy: Points to Consider

Manage modules on the Create Child Module or Edit Module page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Taxonomy Hierarchy task. When you create a module, it is a child of the currently selected node in the application taxonomy hierarchy. This determines which values are available, for example for module type. Once created, you cannot delete the module or move it elsewhere in the hierarchy. As you create or edit modules, consider the following points regarding specific fields.

### Identifiers

Module ID is the unique primary key for nodes in the taxonomy table. When you create a module, an ID is automatically generated. Once the module is created, you cannot update the ID.

Module key and alternative ID are additional identifiers of the module, presented in a way that is easier to read than the module ID. The module key is a string identifier, for example AP for the Oracle Fusion Payables application. The alternative ID is a numeric identifier, for example 1 for the Oracle Fusion product line. These IDs are provided for the product line, product family, and application modules, but you can optionally add them for logical business areas and new custom modules.

---

### Note

Do not change the module key or alternative ID for predefined modules.

---

The product code is relevant only to application and logical business area modules. You can leave the field blank for other module types. The product code for applications is the short name that can be displayed in lists of application values, for example FND for Oracle Fusion Middleware Extensions for Applications.

### Names

Module name is the logical name for the module and is always available. The name must be unique among nodes in the same hierarchy level with the same parent, but try to make it as unique in the whole hierarchy as possible.

The user name and description can appear to users in other parts of Oracle Fusion Applications, so make sure that the values are something that users know to represent the module.

### Usage Types

Though you can update the usage type to reflect the current state of the module, just doing so does not affect the actual state. For example, setting a module as installed does not mean it is actually installed if the installation itself has not taken place. Installation refers to operations related to laying down all the

components needed to create an Oracle Fusion Applications environment, while deployment is the process that starts the managed servers and clusters and facilitates the actual use of product offerings. A licensed module is available for installation and deployment, and a deployed module is considered actively used when actually used by users.

### **Seed Data**

If seed data is allowed, then seed data such as flexfields and lookups can be extracted for the module using seed data loaders. By default, extract is allowed for all predefined modules of type application and logical business area.

### **Associations**

You can associate a logical domain to modules of type product family, as well as one or more enterprise applications to modules of type application. This association represents the relationship between the taxonomy modules and the corresponding domain and enterprise applications stored in the Oracle Fusion Applications Functional Core (ASK) tables.

## **Define Reference Data Sharing**

### **Reference Data Sharing: Explained**

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

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

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of managers in different business units setting up the same grades, XYZ Corporation decides to create a set called Grades and assign the grades reference data group for all business units in the organization to the Grades set, so that the grades can be shared.

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#### **Note**

For specific information on configuring reference data sharing for a particular object or product, refer to its product documentation.

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## Reference Data Sets: Explained

Reference data sets are logical groups of reference data that can be accessed by various transactional entities depending on the business context. Oracle Fusion Applications contains a common reference data set as well as an enterprise set that may be used as a default set. Depending on your business requirement you can create and maintain additional reference data sets, while continuing to use the common reference data set.

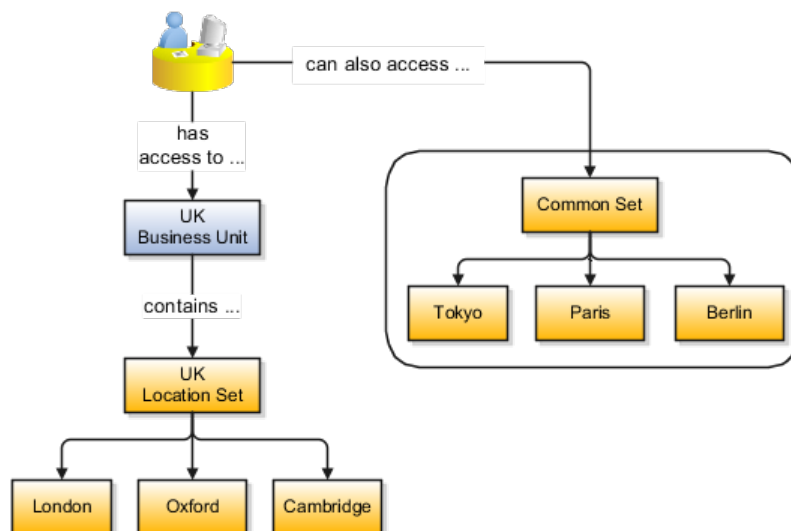
Consider the following scenario.

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

### Partitioning

The partitioning of reference data and creation of data sets enable you to create reference entities across tables or lookup types, and share modular information and data processing options among business units. With the help of partitioning, you can choose to create separate sets and subsets for each business unit depending upon its business requirement, or create common sets or subsets to enable sharing reference data between several business units, without the need for duplicating the reference data. Partitioning provides you the flexibility to handle the reference data in a way appropriate to your business needs.

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



## Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses, thereby reducing the administrative burden and decreasing the time needed to implement new business units. For example, you can share sales methods, transaction types, or payment terms across business units or selected other data across asset books, cost organizations, or project units.

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

### Reference Data Sets

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

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

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

### Reference Data Sharing Methods

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

- Assignment to one set only, no common values allowed. The simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. The most commonly used method of sharing reference data that allows defining reference data



object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units without the need to be explicitly assigned the transaction types to each business unit. In addition, you can assign a business unit specific set of transaction types. At transaction entry, the list of values for transaction types includes transaction types from the set assigned to the business unit, as well as transaction types assigned to the common set that is shared across all business units.

- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but the payment term Net 15 is assigned to only your corporate business unit specific set. At transaction entry, the list of values for payment terms consists of only one set of data; the set that is assigned to the transaction's business unit.

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

## Assigning Reference Data Sets to Reference Objects: Points to Consider

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

### Determinant Types

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

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

## Determinant

The determinant or determinant value is the value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set. For example, when managing set assignments for the set determinant type, Reference Data Set is the determinant type, and you would enter the corresponding set code value as the corresponding determinant value.

## Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data) that are treated in the same manner because of commonness in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups, based on the functional area and the partitioning requirements that they have in common. For example, all tables and views that define Sales Order Type details might be part of the same reference group.

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### Note

The reference groups are predefined in the reference groups table and are available for selection and assignment.

---

## Define Lookups

### Lookups: Explained

Lookups are lists of values in applications. You define a list of values as a lookup type consisting of a set of lookup codes, each code's translated meaning, and optionally a tag. End users see the list of translated meanings as the available values for an object.

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

In another example, a lookup type for marital status has lookup codes for users to specify married, single, or available legal partnerships.

Lookup Type	Lookup Code	Meaning	Tag
MAR_STATUS	M	Married	
	S	Single	
	R	Registered Partner	+NL
	DP	Domestic Partner	-FR, AU

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

When managing lookups, you need to understand the following.

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

## Using Lookups in Applications

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

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

## Customization Level

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

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

The customization levels are user, extensible, and system. The following table shows which lookup management tasks are allowed at each customization level.

Allowed Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No
Updating start date, end date, and enabled fields	Yes	Yes, only if the code is not predefined data	No
Deleting codes	Yes	Yes, only if the code is not predefined data	No
Updating tags	Yes	No	No
Updating module	Yes	No	No

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

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

Once the customization level is set for a lookup type, it cannot be modified. The customization level for lookup types created using the Define Lookups page is by default set at the User level.

### Standard, Common, and Set-Enabled Lookups

The available kinds of lookups are as follows.

Lookup	Description
Standard	Lists the available codes and translated meanings
Set enabled	Additionally associates a reference data set with the lookup codes
Common	Legacy lookups

Standard lookups are the simplest form of lookup types consisting only of codes and their translated meaning. They differ from common lookups only in being defined in the standard lookup view.

Common lookups exist for reasons of backward compatibility and differ from standard lookups only in being defined in the common lookup view.

Set enabled lookup types store lookup codes that are enabled for reference data sharing. At runtime, a set-enabled lookup code is visible because the value of the determinant identifies a reference data set in which the lookup code is present.

### Accessing Lookups

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

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

### Enabling Lookups

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

Enable lookups based on the following.

- Selecting an **Enabled** check box

- Specifying an enabled start date, end date, or both
- Specifying a reference data set determinant

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

## Managing a Standard Lookup: Example

Creating a new standard lookup involves creating or selecting a lookup type to which the lookup code belongs, and determining appropriate values for the lookup codes and their meanings.

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### Note

You can only create or edit the lookup codes for a particular lookup type if its customization level supports it.

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### Creating a Lookup Type Called COLORS

Your enterprise needs a list of values for status to be used on various objects such as processes or users. The lookups are colors, so the lookup type you create is COLORS.

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

The lookup codes you define for the COLORS lookup type are, BLUE, RED, GREEN, and YELLOW.

Lookup Code	Meaning	Enabled	Display Sequence
BLUE	Urgent	No	4
RED	Stop	Yes	1
GREEN	Go	Yes	3
YELLOW	Caution	Yes	2

### Understanding the Resulting Data Entry List of Values

Users need to respond to a process question by indicating whether to stop it, use caution, go ahead, or complete it urgently.

The list of values for the COLORS lookup type includes the meanings for the enabled codes.

Displayed Value	Hidden ID
Stop	RED
Caution	YELLOW
Go	GREEN

### Analysis

The BLUE lookup code was not enabled and does not appear in the list of values. The display sequence of values in the list of values is alphabetical unless you enter a number manually to determine the order of appearance. Number 1 indicates the value listed first in the list of values.

---

### Note

Only lookups that are enabled and active, meaning between start and end dates, are visible.

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When users enter one of the values from the list of values for the lookup type COLORS, the transaction table records the lookup code. In this example, the code is stored in the Status column

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

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

## Managing Set-Enabled Lookups: Examples

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

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### Note

You can only create or edit the lookup codes for a particular lookup type if its customization level supports it.

The reference data set for a set-enabled lookup code is part of its foreign key. This is unlike other set-enabled entities.

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### Selecting a Reference Group for a Set-Enabled Lookup Type

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

## Selecting a Reference Data Set for a Set-Enabled Lookup

The reference data set determines which lookup code is included in the list of values. If a COLORS lookup type contains a RED, YELLOW, ORANGE, and GREEN lookup code, you can enable one RED lookup as coming from the US reference data set and another RED lookup as coming from the EU reference data set with divergent meanings.

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

In addition to divergent meanings for lookup codes based on associated reference data set, some lookup codes may be unique to one or another reference data set as the ORANGE lookup is to the EU reference data set in this example.

In another example, a lookup type called HOLD\_REASON provides a list of reasons for applying a hold to a contract renewal. Reference data sets determine which codes are included in the hold reason list of values.

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

Using the Manage Set Assignments task, you have defined assignments that designate the China business unit to refer to the CHINA and the US business unit to refer to the US and all business units to refer to the COMMON set. When end users place a contract hold in the US business unit, only the three reason codes in US\_SET are available. When placing a contract hold in the China business, only the two codes in China\_SET are available.

## FAQs for Define Lookups

### How can I edit lookups?

You can edit the existing lookup codes of a lookup type or add new lookup codes on the Define Lookups pages, which you can access by starting in the Setup and Maintenance work area and searching for lookup tasks. You can edit the existing lookup codes of a lookup type, or add new lookup codes to a lookup type, if the customization level for the lookup type supports editing.

## Why can't I see my lookup types?

Lookups are listed by lookup type. Typically lookup types are managed using tasks that handle a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types. The generic tasks provide access to all lookup types of a kind, such as all common lookups using the Manage Common Lookups task.

If existing lookups are not available to the tasks of the Define Lookups activity, they may be validated for use in a lookup view that is not central to all applications or whose owning application has not been specified in a lookup view.

Lookups can only be managed in the Define Lookups tasks if the lookup's view application is the standard lookups view, common lookups view, or set-enabled lookups view. Lookups defined in an application view can only be managed by following instructions provided by the owning application.

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### Note

A lookup type and its codes can only be defined in one lookup view.

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

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

A table-validated value set can consist of values that are validated through a SQL statement, which allows the list of values to be dynamic.

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### Tip

A table validated value set can be defined based on any table, including the lookups table. This allows a lookup type to be made into a table-validated value set that can be used in flexfields.

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Area of Difference	Lookup Type	Value Set
List of values	Static	Dynamic if Table validation type
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	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	Managed by both administrators and end-users, except system lookups or predefined lookups at the system customization level, which cannot be modified.	Maintained by administrators, except some product flexfield codes, such as GL for Oracle Fusion General Ledger, which are maintained by end users



A lookup type cannot make use of a value from a value set.

Value sets can make use of standard, common, or set-enabled lookups.

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

### **What's a lookup tag used for?**

Tags on lookup codes allow you to add a label to your lookup codes.

Lookup tags are unvalidated and uninterpreted by lookups. A tag can be used to categorize lookups based on facilitating searches or guiding how a lookup should be used.

Document what the tag on a lookup represents and how to use it.

## **Manage Messages**

### **Messages: Highlights**

The message dictionary contains messages that tell users about business rule errors, such as missing or incorrect data, and how to resolve them, to warn users about the consequences of intended actions, and provide information in log files. These messages are defined for specific applications and modules, but a few are common messages that can be used in any application. All applications also use messages stored outside of the message dictionary.

The message dictionary is described in the Oracle Fusion Applications Developer's Guide, and other messages in the Oracle Fusion Middleware Web User Interface Developer's Guide for Oracle Application Development Framework.

#### **Managing Messages**

- Use the Manage Messages page to create and edit custom messages in the message dictionary, as well as edit predefined messages. Do not delete predefined messages unless you are sure that they are not used anywhere. Refer to the Oracle Fusion Applications Developer's Guide.

See: Introduction to Message Dictionary Messages

- Messages outside of the message dictionary, for example confirmations and field validations, are managed in Oracle Application Development Framework Faces components or through message resource bundles used for translation. Refer to the Oracle Fusion Middleware Web User Interface Developer's Guide for Oracle Application Development Framework.

See: Displaying Hints and Error Messages for Validation and Conversion

See: Internationalizing and Localizing Pages

## Creating and Editing Messages: Highlights

Each message in the message dictionary has many attributes and components, including message properties, text, and tokens, that you define when creating or editing the message.

Details about these messages are described in the Oracle Fusion Applications Developer's Guide.

### Message Properties

- The message type identifies the type of information that the message contains.

See: Understanding Message Types

- The message name and number are identifiers for the message. There are specific message number ranges for predefined messages in each application, and you should not edit numbers assigned to predefined messages. When creating custom messages, use only message numbers within the 10,000,000 to 10,999,999 range.

See: About Message Names

See: About Message Numbers

- The translation notes for predefined messages might contain internal content that you can disregard.

See: About Translation Notes

- The message category, severity, and logging enabled option are related to the incident and logging process.

See: About Grouping Messages by Category and Severity

See: Understanding Incidents and Diagnostic Logs with Message Dictionary

### Message Text and Tokens

- The message text comprises various components, some of which are displayed only to select users. To determine which component of the message text is displayed to a particular user, set the Message Mode profile option (FND\_MESSAGE\_MODE) at the user level for that user. The message component short text is visible to all users and therefore, the profile option does not apply to this component. Also, the profile option applies only to messages in the message dictionary.

See: About Message Components

- Tokens are variables that represent values to be displayed in the message text.

See: About Tokens

## Common Messages: Points to Consider

Common messages, which have message names that begin with FND\_CMN and message numbers between 0 and 999, are used throughout Oracle Fusion Applications. Each common message can appear in multiple places in any product family. For example, the FND\_CMN\_NEW\_SRCH message can be used for any search to indicate that no results were found. Common messages that are of type error or warning are part of the message dictionary.

### Editing Common Messages

Because a common message can be used in any application, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, make sure that the text would make sense to all users across Oracle Fusion Applications who might see it.

### Creating Common Messages

You can create custom common messages for use in multiple places within a single product. Do not begin the message name with FND\_CMN, but use another suitable convention. The message number should be within the range that is designated for the product.

## Define ISO Reference Data

### Defining Currencies: Points to Consider

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

#### Currency Codes

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

#### Date Ranges

Users can enter transactions denominated in the currency only for the dates within the specified range. If you do not enter a start date, then the currency is valid immediately. If you do not enter an end date, then the currency is valid indefinitely.

#### Symbols

Even if you enter a symbol for a currency, the symbol is not always displayed when an amount is displayed in this currency. Some applications use currency

symbols when displaying amounts. Others, like Oracle Fusion General Ledger, do not.

## Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date.

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### Note

If you need to use a different currency code for Euro, you can disable the predefined Euro currency and create a new one.

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### Derivation Type

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

### Derivation Factor

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

### Derivation Effective Date

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

## Natural Languages: Points to Consider

Natural languages are all the languages that humans use, written and spoken. If a language is enabled, then users can associate it with entities, for example as languages spoken by sales representatives. When managing natural languages, consider tasks to perform and best practices for entering particular values.

### Tasks

Once you add a language, it cannot be deleted, just disabled. You can optionally associate natural languages with International Organization for Standardization (ISO) languages and territories, just for reference.

### Values

When you create a natural language, use the alpha-2 ISO code as the language code, or, if not available, then alpha-3. If the language is not an ISO language, then use **x-** as a prefix for the code, for example **x-ja** for a Japanese dialect.

Use the **sgn** code of ISO-639-2 for sign languages, followed by territory code, for example **sgn-US** for American Sign Language. You can also use Internet Assigned Numbers Authority (IANA) language tags.

The natural language description should be the language name with territory name in parenthesis where needed, for example **English (Australia)** and **English (Canada)**.

## **FAQs for Define ISO Reference Data**

### **When do I create or edit territories?**

Edit territory descriptions to determine how they are displayed in lists of country values throughout Oracle Fusion Applications. The predefined territories are all countries from the International Organization for Standardization (ISO) 3166 standard. You usually would not edit territory names or codes.

Do not edit National Language Support (NLS) territory codes, which are identifiers used in the system, unless you need to change the association between ISO and system territory. You usually would not edit the default currency, which is the value that defaults in the **Currency** field in Oracle Fusion Applications user preferences after the user first selects a territory.

Create territories if new countries emerge and the system has not yet been patched with the latest ISO country values.

### **When do I create or edit industries?**

Edit industry descriptions to determine how they are displayed in Oracle Fusion Applications. You usually would not edit industry names, which are from the North American Industry Classification System (NAICS). Enabled industries are mainly used in the context of customization, though these values can also appear in any application.

Create industries if you have particular ones you need, for example for customization, that are not included in the NAICS standard.

### **When do I associate industries with territories?**

Optionally associate industries with territories to provide an industry in territory value, used for customization. For example, administrators can customize a page in one way for users within an industry in one country, and another way for users within the same industry in another country. The administrator would select the appropriate industry in territory value to set the customization context.

### **When do I create or enable currencies?**

Create currencies to use, for example for reporting purposes, if they are not already provided. All currencies from the International Organization for Standardization (ISO) 4217 standard are provided.

Enable any currency other than USD for use in Oracle Fusion Applications, for example for displaying monetary amounts, assigning to sets of books, entering transactions, and recording balances. Only USD is enabled by default.

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

Precision is the number of digits to the right of the decimal point used in regular currency transactions. Extended precision is the number of digits to the right of the decimal point used in calculations for this currency, and it must be greater than or equal to the standard precision. For example, USD would have 2 for precision because amounts are transacted as such, for example \$1.00. For calculations, for example adding USD amounts, you might want the application to be more precise than two decimal digits, and would enter an extended precision accordingly.

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### **Note**

Some applications use extended precision. Others, such as Oracle Fusion General Ledger, do not.

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Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for the cent. This unit does not necessarily correspond to the precision for all currencies.

## **What's a statistical unit currency type?**

The statistical unit currency type is used only for the Statistical (STAT) currency. The Statistical currency is used to record statistics such as the number of items bought and sold. Statistical balances can be used directly in financial reports, allocation formulas, and other calculations.

## **When do I create or edit ISO languages?**

You can edit the names and descriptions of International Organization for Standardization (ISO) languages to determine how they are displayed in lists of ISO language values in Oracle Fusion Applications. The ISO languages are from the ISO 639 standard. If there were changes to the ISO standard and the system has not yet been patched with the latest ISO values, you can update the ISO alpha-2 code or add languages as needed.

## **When do I edit languages?**

Installed languages automatically appear on the Manage Languages page, so you do not manually enter newly installed languages. This page contains all languages available for installation and translation in Oracle Fusion Applications. Each dialect is treated as a separate language. The language codes and names are values used by the system.

You generally would not edit any of the detailed fields unless you really need to and know what they are.

## **When do I create or edit time zones?**

Though all standard time zones are provided, optionally enable only a subset for use in lists of time zone values in Oracle Fusion Applications. You can add time

zones if new zones became standard and the system has not yet been patched with the latest values.

## Manage Data Security Policies

### Data Security in the Security Reference Implementation: Explained

The reference implementation contains a set of data security policies that can be inspected and confirmed to be suitable or a basis for further implementation using the Authorization Policy Manager (APM).

The security implementation of an enterprise is likely a subset of the reference implementation, with the enterprise specifics of duty roles, data security policies, and HCM security profiles provided by the enterprise.

The business objects registered as secure in the reference implementation are database tables and views.

Granting or revoking object entitlement to a particular user or group of users on an object instance or set of instances extends the base Oracle Fusion Applications security reference implementation without requiring customization of the applications that access the data.

#### Data Security Policies in the Security Reference Implementation

The data security policies in the reference implementation entitle the grantee (a role) to access instance sets of data based on SQL predicates in a WHERE clause.

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#### Tip

When extending the reference implementation with additional data security policies, identify instance sets of data representing the business objects that need to be secured, rather than specific instances or all instances of the business objects.

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Predefined data security policies are stored in the data security policy store, managed in the Authorization Policy Manager (APM), and described in the Oracle Fusion Applications Security Reference Manual for each offering. A data security policy for a duty role describes an entitlement granted to any job role that includes that duty role.

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#### Warning

Review but do not modify HCM data security policies in APM except as a custom implementation. Use the HCM Manage Data Role And Security Profiles task to generate the necessary data security policies and data roles.

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The reference implementation only enforces a portion of the data security policies in business intelligence that is considered most critical to risk management without negatively affecting performance. For performance reasons it is not practical to secure every level in every dimension. Your enterprise

may have a different risk tolerance than assumed by the security reference implementation.

### **HCM Security Profiles in the Security Reference Implementation**

The security reference implementation includes some predefined HCM security profiles for initial usability. For example, a predefined HCM security profile allows line managers to see the people that report to them.

The IT security manager uses HCM security profiles to define the sets of HCM data that can be accessed by the roles that are provisioned to users

### **Data Roles**

The security reference implementation includes no predefined data roles to ensure a fully secured initial Oracle Fusion Applications environment.

The security reference implementation includes data role templates that you can use to generate a set of data roles with entitlement to perform predefined business functions within data dimensions such as business unit. Oracle Fusion Payables invoicing and expense management are examples of predefined business functions. Accounts Payable Manager - US is a data role you might generate from a predefined data role template for payables invoicing if you set up a business unit called US.

HCM provides a mechanism for generating HCM related data roles.

## **Data Security: Explained**

By default, users are denied access to all data.

Data security makes data available to users by the following means.

- Policies that define grants available through provisioned roles
- Policies defined in application code

You secure data by provisioning roles that provide the necessary access. Enterprise roles provide access to data through data security policies defined for the inherited application roles.

When setting up the enterprise with structures such as business units, data roles are automatically generated that inherit job roles based on data role templates. Data roles also can be generated based on HCM security profiles. Data role templates and HCM security profiles enable defining the instance sets specified in data security policies.

When you provision a job role to a user, the job role implicitly limits data access based on the data security policies of the inherited duty roles. When you provision a data role to a user, the data role explicitly limits the data access of the inherited job role to a dimension of data.

Data security consists of privileges conditionally granted to a role and used to control access to the data. A privilege is a single, real world action on a



single business object. A data security policy is a grant of a set of privileges to a principal on an object or attribute group for a given condition. A grant authorizes a role, the grantee, to actions on a set of database resources. A database resource is an object, object instance, or object instance set. An entitlement is one or more allowable actions applied to a set of database resources.

Data is secured by the following means.

Data security feature	Does what?
Data security policy	Grants access to roles by means of entitlement
Role	Applies data security policies with conditions to users through role provisioning.
Data role template	Defines the data roles generated based on enterprise setup of data dimensions such as business unit.
HCM security profile	Defines data security conditions on instances of object types such as person records, positions, and document types without requiring users to enter SQL code
Masking	Hides private data on non-production database instances
Encryption	Scrambles data to prevent users without decryption authorization from reading secured data

The sets of data that a user can access via roles are defined in Oracle Fusion Data Security. Oracle Fusion Data Security integrates with Oracle Platform Security Services (OPSS) to entitle users or roles (which are stored externally) with access to data. Users are granted access through the entitlement assigned to the roles or role hierarchy with which the user is provisioned. Conditions are WHERE clauses that specify access within a particular dimension, such as by business unit to which the user is authorized.

### Data Security Policies

Data security policies articulate the security requirement "Who can do What on Which set of data," where 'Which set of data' is an entire object or an object instance or object instance set and 'What' is the object entitlement.

For example, accounts payable managers can view AP disbursements for their business unit.

Who	can do	what	on which set of data
Accounts payable managers	view	AP disbursements	for their business unit

A data security policy is a statement in a natural language, such as English, that typically defines the grant by which a role secures business objects. The grant records the following.

- Table or view
- Entitlement (actions expressed by privileges)

- Instance set (data identified by the condition)

For example, disbursement is a business object that an accounts payable manager can manage by payment function for any employee expenses in the payment process.

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**Note**

Some data security policies are not defined as grants but directly in applications code. The security reference manuals for Oracle Fusion Applications offerings differentiate between data security policies that define a grant and data security policies defined in Oracle Fusion applications code.

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A business object participating in a data security policy is the database resource of the policy.

Data security policies that use job or duty roles refer to data security entitlement.

For example, the data security policy for the Accounts Payable Manager job role refers to the view action on AP disbursements as the data security entitlement.

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**Important**

The duty roles inherited by the job role can be moved and job roles reassembled without having to modify the data security.

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As a security guideline, data security policies based on user session context should entitle a duty role. This keeps both function and data security policies at the duty role level, thus reducing errors.

For example, a Sales Party Management Duty can update Sales Party where the provisioned user is a member of the territory associated with the sales account. Or the Sales Party Management Duty can update Sales Party where the provisioned user is in the management chain of a resource who is on the sales account team with edit access. Or the Participant Interaction Management Duty can view an Interaction where the provisioned user is a participant of the Interaction.

For example, the Disbursement Process Management Duty role includes entitlement to build documents payable into payments. The Accounts Payable Manager job role inherits the Disbursement Process Management Duty role. Data security policies for the Disbursement Process Management Duty role authorize access to data associated with business objects such as AP disbursements within a business unit. As a result, the user provisioned with the Accounts Payable Manager job role is authorized to view AP disbursements within their business unit.

A data security policy identifies the entitlement (the actions that can be made on logical business objects or dashboards), the roles that can perform those actions, and the conditions that limit access. Conditions are readable WHERE clauses. The WHERE clause is defined in the data as an instance set and this is then referenced on a grant that also records the table name and required entitlement.

**Data Roles**

Data roles are implemented as job roles for a defined set of data.

A data role defines a dimension of data within which a job is performed. The data role inherits the job role that describes the job. For example, a data role entitles a user to perform a job in a business unit.

The data role inherits abstract or job roles and is granted data security privileges. Data roles carry the function security privileges inherited from job roles and also the data security privilege granted on database objects and table rows.

For example, an accounts payables specialist in the US Business Unit may be assigned the data role Accounts Payables Specialist - US Business Unit. This data role inherits the job role Accounts Payables Specialist and grants access to transactions in the US Business Unit.

A data role may be granted entitlement over a set people.

For example, a Benefits Administrator A-E is allowed to administer benefits for all people that have a surname that begins with A-E.

Data roles are created using data role templates. You create and maintain data roles in the Authorization Policy Manager (APM). Use the Manage Data Roles and Security Profiles task to create and maintain HCM data roles in Oracle Fusion HCM.

### **HCM Security Profiles**

HCM security profiles are used to secure HCM data, such as people and departments. You use HCM security profiles to generate grants for an enterprise role. The resulting data role with its role hierarchy and grants operates in the same way as any other data role.

For example, an HCM security profile identifies all employees in the Finance division.

Oracle Fusion Payroll uses HCM security profiles to secure project organizations. Applications outside of HCM can use the HCM Data Roles UI pages to give their roles access to HR people.

### **Masking and Encryption**

Oracle Fusion Applications uses masking to protect sensitive data from view by unauthorized users. Encryption APIs mask sensitive fields in applications user interfaces. Additionally, Oracle Data Masking is available for masking data in non-production instances and Oracle Transparent Data Encryption is available for protecting data in transit or in backups independent of managing encryption keys.

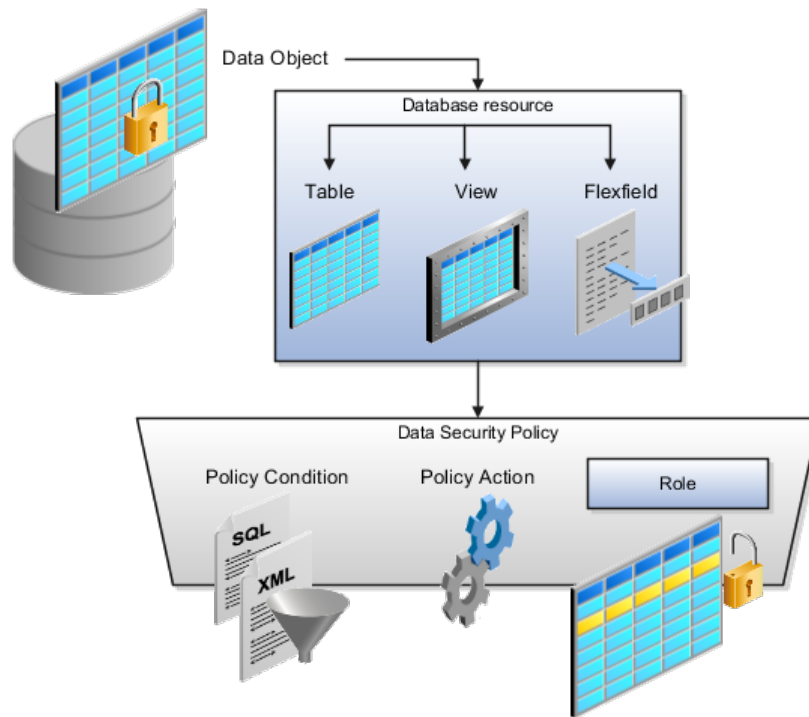
## **Database Resources and Data Security Policies: How They Work Together**

A data security policy applies a condition and allowable actions to a database resource for a role. When that role is provisioned to a user, the user has access to data defined by the policy. In the case of the predefined security reference implementation, this role is always a duty role. Data roles generated to inherit

the job role based on data role templates limit access to database resources in a particular dimension, such as the US business unit.

The database resource defines and instance of a data object. The data object is a table, view, or flexfield.

The following figure shows the database resource definition as the means by which a data security policy secures a data object. The database resource names the data object. The data security policy grants to a role access to that database resource based on the policy's action and condition.



## Database Resources

A database resource specifies access to a table, view, or flexfield that is secured by a data security policy.

- Name providing a means of identifying the database resource
- Data object to which the database resource points

## Data Security Policies

Data security policies consist of actions and conditions for accessing all, some, or a single row of a database resource.

- Condition identifying the instance set of values in the data object
- Action specifying the type of access allowed on the available values

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### Note

If the data security policy needs to be less restrictive than any available database resource for a data object, define a new data security policy.

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## Actions

Actions correspond to privileges that entitle kinds of access to objects, such as view, edit, or delete. The actions allowed by a data security policy include all or a subset of the actions that exist for the database resource.

## Conditions

A condition is either a SQL predicate or an XML filter. A condition expresses the values in the data object by a search operator or a relationship in a tree hierarchy. A SQL predicate, unlike an XML filter, is entered in a text field in the data security user interface pages and supports more complex filtering than an XML filter, such as nesting of conditions or sub queries. An XML filter, unlike a SQL predicate, is assembled from choices in the UI pages as an AND statement.

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### Tip

An XML filter can be effective in downstream processes such as business intelligence metrics. A SQL predicate cannot be used in downstream metrics.

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## Securing Data Access: Points to Consider

Oracle Fusion Applications supports securing data through role-based access control (RBAC) by the following methods.

Method of securing data	Reason	Example
Data roles apply explicit data security policies on job and abstract roles	Appropriate for job and abstract roles that should only access a subset of data, as defined by the data role template that generates the data role or by HCM security profiles.	Accounts Payable Manager - US data role to provide an accounts payable manager in the US business unit with access to invoices in the US business unit.
Data security policies	Define data access for application roles and provide inheriting job and abstract roles with implicit data security	Projects

If a user has access to the same function through different roles that access different data sets, then the user has access to a union of those data sets.

When a runtime session is created, Oracle Platform Security Services (OPSS) propagates only the necessary user to role mapping based on Oracle Fusion Data Security grants. A grant can specify entitlement to the following.

- Specific rows of data (data object) identified by primary key
- Groups of data (instance set) based on a predicate that names a particular parameter
- Data objects or instance sets based on runtime user session variables

Data is either identified by the primary key value of the row in the table where the data is stored. Or data is identified by a rule (SQL predicate) applied to the WHERE clause of a query against the table where the data is stored.

## Grants

Oracle Fusion Data Security can be used to restrict the following.

- Rows that are returned by a given query based on the intended business operation
- Actions that are available for a given row

Grants control which data a user can access.

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### Note

Attribute level security using grants requires a data security policy to secure the attribute and the entitlement check enforces that policy.

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A grant logically joins a user or role and an entitlement with a static or parameterized object instance set. For example, `REGION='WEST'` is a static object instance set and `REGION=&GRANT_ALIAS.PARAMETER1` is a parameterized object instance set. In the context of a specific object instance, grants specify the allowable actions on the set of accessible object instances. In the database, grants are stored in `FND_GRANTS` and object instance sets are stored in `FND_OBJECT_INSTANCE_SETS`. Object access can be tested using the privilege check application programming interface (API).

## Securing a Business Object

A business object is a logical entity that is typically implemented as a table or view, and corresponds to a physical database resource. The data security policies of the security reference implementation secure predefined database resources. Use the Manage Data Security Policies task to define and register other database resources.

Data security policies identify sets of data on the registered business object and the actions that may be performed on the business object by a role. The grant can be made by data instance, instance set or at a global level..

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### Note

Use parameterized object instance sets whenever feasible to reduce the number of predicates the database parses and the number of administrative intervention required as static object instances sets become obsolete. In HCM, security profiles generate the instance sets.

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## Data Role Templates: Explained

You use data role templates to generate data roles. You generate such data roles, and create and maintain data role templates in the Authorization Policy Manager (APM).

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**Note**

HCM data roles are generated using the Manage Data Roles and Security Profiles task, which uses HCM security profiles, not data role templates, to define the data security condition.

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The following attributes define a data role template.

- Template name
- Template description
- Template group ID
- Base roles
- Data dimension
- Data role naming rule
- Data security policies

The data role template specifies which base roles to combine with which dimension values for a set of data security policies. The base roles are the parent job or abstract roles of the data roles.

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**Note**

Abstract, job, and data roles are enterprise roles in Oracle Fusion Applications. Oracle Fusion Middleware products such as Oracle Identity Manager (OIM) and Authorization Policy Manager (APM) refer to enterprise roles as external roles. Duty roles are implemented as application roles in APM and scoped to individual Oracle Fusion Applications.

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The dimension expresses stripes of data, such as territorial or geographic information you use to partition enterprise data. For example, business units are a type of dimension, and the values picked up for that dimension by the data role template as it creates data roles are the business units defined for your enterprise. The data role template constrains the generated data roles with grants of entitlement to access specific data resources with particular actions. The data role provides provisioned users with access to a dimensional subset of the data granted by a data security policy.

An example of a dimension is a business unit. An example of a dimension value is a specific business unit defined in your enterprise, such as US. An example of a data security policy is a grant to access a business object such as an invoice with a view entitlement.

When you generate data roles, the template applies the values of the dimension and participant data security policies to the group of base roles.

The template generates the data roles using a naming convention specified by the template's naming rule. The generated data roles are stored in the Lightweight Directory Access Protocol (LDAP) store. Once a data role is generated, you provision it to users. A user provisioned with a data role is granted permission to access the data defined by the dimension and data security grant policies of the data role template.

For example, a data role template contains an Accounts Payable Specialist role and an Accounts Payable Manager role as its base roles, and region as its dimension, with the dimension values US and UK. The naming convention is [base-role-name]:[DIMENSION-CODE-NAME]. This data role template generates four data roles.

- Accounts Payable Specialist - US (business unit)
- Accounts Payable Specialist - UK (business unit)
- Accounts Payable Manager - US (business unit)
- Accounts Payable Manager - UK (business unit)

## **Making Changes To Data Role Templates**

If you add a base role to an existing data role template, you can generate a new set of data roles. If the naming rule is unchanged, existing data roles are overwritten.

If you remove a base role from a data role template and regenerate data roles, a resulting invalid role list gives you the option to delete or disable the data roles that would be changed by that removal.

## **Making Changes to Dimension Values**

If you add a dimension value to your enterprise that is used by a data role template, you must regenerate roles from that data role template to create a data role for the new dimension. For example if you add a business unit to your enterprise, you must regenerate data roles from the data role templates that include business unit as a dimension.

If you add or remove a dimension value from your enterprise that is used to generate data roles, regenerating the set of data roles adds or removes the data roles for those dimension values. If your enterprise has scheduled regeneration as an Oracle Enterprise Scheduler Services process, the changes are made automatically.

For information on working with data role templates, see the Oracle Fusion Middleware Administrator's Guide for Authorization Policy Manager (Oracle Fusion Applications Edition).

# **Define Document Sequences**

## **Document Sequences: Explained**

In Oracle Fusion Applications, each business document or business event is uniquely identified by a document sequence number that you assign to it. However, the document sequencing feature must be turned on (enabled) on the business document or event to allow the assignment. For example, if document sequencing is enabled, you can assign a document sequence number



to an invoice that gets generated in response to a purchase order. You can use document sequences as a proof to track successfully executed transactions as well as failed transactions. Additionally, a document sequence helps in generating an audit trail, which can be used to identify how a particular transaction passed through various applications.

Document sequencing can be managed automatically, manually, and gaplessly.

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**Note**

Plan your document sequencing carefully before you use the options available in the application to apply sequence numbers. Avoid changes to the options after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

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**Automatic Sequencing**

Automatic document sequencing assigns a unique number to each document as it is generated, and this unique number is stored in the database. The numbering is sequential by date and time of creation. If you define a sequence to automatically number documents, you can provide an initial value to begin the sequence. In absence of a custom value, the default value 1 is used.

**Manual Sequencing**

Manual sequencing requires you to assign a unique number to each document before it is generated. In manual sequencing, the numerical ordering and completeness of a transaction is not enforced. Users can skip or omit numbers when entering the sequence value. However, each time that a number is assigned, the application validates its uniqueness.

**Gapless Sequencing**

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. As a result, the sequence is maintained for all the documents that are generated, and no sequence numbers are lost due to incomplete or failed document generation.

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**Important**

Use this type of sequencing only if necessary because it may affect the performance of the system and slow down transaction processing.

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**Sequential Numbering Enforced Profile Options**

The Sequential Numbering Enforced profile validates the documents being created and applies the relevant document sequence, based on the selected option. The following options are available:

- **Always Used:** Sequential numbering is enforced for all document categories. When this option is set, users cannot create a document if its document category is not assigned any active document sequence. The system displays an error.
- **Partially Used:** Sequential numbering is enforced for all document categories. However, if no sequence is available for the document, the

system displays a warning. Users can either proceed without a document sequence or create and assign a document sequence before proceeding.

- **Not Used:** Sequential numbering is not enforced. In this mode, although the documents created do not require a document sequence to be assigned, the system checks for the uniqueness of the document number provided. The system does not display any warning or error.

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#### Restriction

At the site level, the profile is by default set to Partially Used. Avoid changing this option as doing so may interfere with the validation logic and the data that was stored using the earlier option may not appear. However, you can change the option at the product or user level.

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## Document Sequence Categories: Explained

A document sequence category is a set of documents that share similar characteristics and that are formed into a logical group. Document sequence categories simplify the task of assigning number sequences to specific documents. Instead of assigning a number to each document, you assign a document sequence to one or more document sequence categories. The document sequence category automatically takes care of numbering the documents.

A document sequence category identifies the database table that stores documents resulting from transactions that your users enter. When you assign a sequence to a category, the sequence numbers the documents that are stored in a particular table. You must create document sequence categories to be able to manage the task of assigning document sequences.

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#### Restriction

Once a document sequence category is created, you cannot change the application, the category code, or the table name. Therefore, carefully consider these details and plan your document sequencing requirement before you begin working with the application.

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Once you create a document sequence category, it is available for use under the **Document Sequences: Assignments** section on the Manage Document Sequences page. The **Category** field contains the name of the document sequence category. After you create a document sequence, you can assign it to a document sequence category.

## Document Sequences: Points to Consider

Sequencing documents is an important business and legal requirement. Certain aspects of the defining process are permanent and cannot be modified later. Therefore, it is important that you first decide the appropriate document sequence to use for a set of documents. You must also decide beforehand the type of document sequencing, because you are not allowed to switch to other types once a sequence is assigned to a document sequence category. Make a

note of the details such as the document sequence and document sequence category so that you can refer to them at a later point in time. Also note if there are any restrictions or configuration prerequisites before you define document sequencing.

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#### Note

Products that implement document sequencing have specifications about its usage. Refer to the corresponding product documentation for specific details and also to determine if there are any restrictions or configuration prerequisites.

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### Creating and Editing Document Sequences

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. If the end date is left blank, it means that the sequence definition never expires. Among the several options used in creating and editing document sequences, the following options are functionally more important and therefore need to be carefully determined:

- **Determinant Type:** Select to limit the document sequencing activity to certain documents that belong to a specific business entity, such as Ledger, Tax Registration, and so on.
- **Initial Value:** Enter a value for the first document in your sequence. This field applies only to sequences with automatic or gapless numbering types. Sequence numbers should not be greater than eight digits. If you leave this field blank, the first document is automatically assigned a value of 1. Once a document sequence is defined, you cannot change this initial value.

### Creating and Editing Document Sequence Categories

Document sequence categories are defined to make it easy to assign document sequence definitions to a group of documents instead of to individual documents. Each document sequence category is mapped to a specific table, where the documents belonging to that category are stored. The table must already be enabled for document sequencing. When specifying the table, you must consider the following points:

- When the sequential numbering feature checks for completeness or generates a report, it locates the category's documents in the table.
- You can select only tables belonging to the application associated with the category.
- Once a category is defined, you cannot change the choice of table.

### Assigning Document Sequences

Identify the documents to be numbered before assigning them a document sequence. For each document sequence, there can be only one active assignment to a document sequence category, a method code, and a determinant value (if applicable). As part of the assignment, specify whether the document is created automatically (for example, due to a batch process, or manually through a

form). If you do not specify an end date, the assignment continues to remain active throughout the process cycle. If a determinant type was specified for the document sequence, then enter a specific determinant value related to the selected determinant type.

At runtime, when users create documents, the document sequence to be assigned is determined by finding the active assignment that matches the correct combination of category, numbering method, and the date range containing the transaction date.

## **Auditing Document Sequences**

You can audit document sequences, if required, to provide an audit trail of the document sequences used in a specific product. However, before enabling the audit functionality for a document sequence, you must have created an audit table for the specific document sequence, using appropriate details. Enabling the audit functionality is permitted only for newly created document sequences. You cannot audit document sequences that are already in use by a specific product.

For more information about defining a document sequence audit table, see the Oracle Fusion Applications Developer's Guide.

## **Define Trees**

### **Trees: Overview**

Use the tree management feature in Oracle Fusion applications to organize data into hierarchies. A hierarchy contains organized data and enables the creation of groups and rollups of information that exist within an organization. Trees are hierarchical structures that enable several data management functions such as better access control, application of business rules at various levels of hierarchies, improved query performance, and so on.

For example, XYZ Corporation has two departments: Marketing and Finance. The Finance department has two functional divisions: Receivables and Payables. Defining a tree for the XYZ Corporation establishes a hierarchy between the organization and its departments, and between the departments and their respective functional divisions. Such a hierarchical modeling of organizational data could be used for executing several data management functions within that organization.

You can create one or more versions of trees, and they can be labeled for better accessibility and information retrieval. You can create trees for multiple data sources, which allow the trees to be shared across Oracle Fusion applications.

### **Tree Structures**

A tree structure is a representation of the data hierarchy, and guides the creation of a tree. A tree is an instance of the hierarchy as defined in the tree structure. Tree structures enable you to enforce business rules to which the data must adhere.

The root node is the topmost node of a tree. Child nodes report to the root node. Child nodes at the same level, which report to a common parent node, are called

siblings. Leaves are details branching off from a node but not extending further down the tree hierarchy.

### **Tree Versions**

A tree is created having only one version. However, users can create more than one tree version depending on the need, and they can make changes to those versions. Depending on varying requirements, users can create one or more tree versions and publish all of them or some of them by making the versions active at the same time. Similar to any other version control system, versions of trees are maintained to keep track of all the changes that a tree undergoes in its life cycle.

### **Tree Labels**

Tree labels are short names associated with trees and tree structures and point directly to the data source. Tree labels are automatically assigned to the tree nodes. You can store labels in any table and register the label data source with the tree structure.

## **Manage Tree Structures**

### **Tree Structures: Explained**

A tree structure defines the hierarchy for creating trees and prescribes rules based on which trees are created, versioned, and accessed. You can associate multiple data sources with a tree structure. A tree is an instance of this hierarchy. Every tree structure can contain one or more trees.

You can create tree structures specific to an application but you can share tree structures across applications. If you apply version control to the tree structure, it is carried over to the trees that are based on the tree structure. Each tree version contains at least one root node. Occasionally, a tree version may have more than one root node.

An administrator controls the access to tree structures through a set of rules that are periodically audited for validity.

### **Tree Structure Definition: Points to Consider**

Defining a tree structure involves specifying several important pieces of information on the **Create Tree Structure: Specify Definition** page.

#### **Tree Node Selection**

The **Tree Node** table displays data in nodes that exist in the data hierarchy. You must select the correct and most appropriate tree node table to be able to define the tree structure, based on the tree hierarchy you want to establish. This selection also affects the level of security that is set on a tree node and its child entities.

#### **Tree Sharing Mode**

The following options are used to determine the mode of sharing a tree structure across the applications.

- Open: Indicates that the tree is associated with all reference data sets.
- Set ID: Indicates that the tree will be associated with a specific reference data set.

## Creation Mode

Indicates the source where the tree structure is being defined. For predefined tree structures select Oracle and for custom structures, select Customers.

## Customization

You can customize the predefined tree structures as well as the ones that you created. However, customizing the predefined tree structures involves certain level of access restrictions, and will be limited to specific tree nodes and downwards in hierarchy.

## Multiple Tree Versions

One or more trees and tree versions can be based on a tree structure. A tree structure can have one or more trees and tree versions based on it. Usually, only one active version is permitted at any given point of time. However, depending on the requirement, you can allow two or more tree versions to be in the active state for the same date range. This flexibility allows you to choose the tree version that you want to implement.

## Managing Tree Structures: Points to Consider

You can create, edit, and delete tree structures depending upon the requirement. You can also audit and change the status a tree structure.

### Creating and Editing Tree Structures

You can create trees on the basis of a tree structure. When you edit an active tree structure, the status of the tree structure and all associated trees and their versions change to draft. To reuse a tree structure, you can create a copy of it without copying the associated trees and tree versions. If you delete a tree structure, all the associated trees and tree versions are automatically deleted.

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#### Note

For specific information on working with the predefined tree structures that exist in an Oracle Fusion application, refer to the specific product documentation.

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### Setting Status

If you change the status of a tree structure, the status of the trees and tree versions associated with that tree structure also changes.

The following table lists the different statuses of a tree structure.

Status	Meaning
Draft	Yet to be published or is in a modified state.

Active	In use and based on which one or more trees or tree versions are created.
Inactive	Not in use.

## Tree Structure Audit Results: Explained

Use the tree structure audit results to verify the tree structure's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

### Running an Audit

Setting the status of a tree structure to active automatically triggers an audit of that tree structure. You can also manually trigger an audit on the manage Tree Structures page, using **Actions - Audit**. The Tree Structure Audit Result table shows a list of validations that ran against the selected tree structure.

### Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Restrict By Set ID	On the Manage Tree Structures: Specify Data Sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have a reference data set attribute. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain a reference data set attribute.	If reference data set restriction is required for this tree structure, include a reference data set attribute on all data sources. Otherwise, deselect the check box.
Row Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid row flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_RF</code> or a custom table.	<ul style="list-style-type: none"> <li>• The specified table does not exist in the database.</li> <li>• The specified table does not contain the same columns as the <code>FND_TREE_NODE_RF</code> table.</li> </ul>	Correct the row flattened table definition.

Available Label Data Sources	<p>On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, the label data source view object specified for each data source must be accessible, and the primary keys must be valid. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.</p>	<ul style="list-style-type: none"> <li>Any of the specified label data source view objects do not exist.</li> <li>Any of the specified label data source view objects do not have primary keys.</li> <li>When a label data source view object is initially defined, the database registers the primary keys for the view object. If the view object is later modified such that its primary keys no longer match the primary keys that were registered earlier, this validation fails.</li> </ul>	<ul style="list-style-type: none"> <li>Correct the specified label data source view object.</li> <li>Correct the primary keys of the specified label data source view object.</li> <li>Either correct the primary keys in the label data source view object to match the primary keys that were earlier registered in <code>FND_TS_DATA_SOURCE</code>, or correct the primary keys registered in that table to match the new view object definition.</li> </ul>
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Available Data Sources	<p>Each data source view object specified for the tree structure must be accessible, and all its primary key attributes must be valid.</p>	<ul style="list-style-type: none"> <li>Any of the specified data source view objects do not exist.</li> <li>When a data source view object is initially defined, the database automatically registers the primary keys for the view object if the <b>Use non-defined primary key columns</b> check box on the Data Source dialog box is not selected. If the check box is selected, the database registers the primary keys specified explicitly by the user on the Add Data Source dialog box. If the registered primary keys contain any duplicates, this validation fails.</li> <li>The <b>Use non defined primary key columns</b> check box is selected in a data source, but the list of specified primary key columns does not match the primary keys defined in the corresponding data source view object.</li> <li>Any common attribute that exists in both the data source view object and the tree node view object is not of the same data type in both view objects.</li> </ul>	<ul style="list-style-type: none"> <li>Correct the specified data source view object.</li> <li>Correct the duplicate column in the registered primary keys.</li> <li>Correct the primary keys of the specified data source view object.</li> <li>Correct any mismatch in data types.</li> </ul>
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Column Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid column flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_CF</code> or a custom table.	<ul style="list-style-type: none"> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE_CF</code> table.</li> </ul>	Correct the column flattened table definition.
Restrict by Date	On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have effective start date and effective end date attributes. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain effective start date and effective end date attributes.	If the date restriction is required for this tree structure, include the effective start date and effective end date attributes on all data sources. Otherwise, deselect the check box.
Tree Node Table Name	On the Manage Tree Structures: Specify Definition page, a valid tree node table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE</code> or a custom table.	<ul style="list-style-type: none"> <li>No table is specified in the <b>Tree Node Table</b> field.</li> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE</code> table.</li> </ul>	Correct the tree node table definition.
Allow Node Level Security	If the <b>Allow Node Level Security</b> option is set to No for the tree structure, the same option cannot be set to Yes on any of its data sources. This is a database setting that is not visible on the Manage Tree Structures page.	The option is set to No for the tree structure but one or more associated data sources have that option set to Yes.	Correct the option setting in the tree structure and their data sources.

## Specifying Data Sources for Tree Structures: Points to Consider

The data sources provide the items for establishing hierarchy in a tree structure. In the tree management infrastructure, these data sources are Oracle Application

Development Framework (ADF) business components view objects, which are defined by application development.

### Labeling Schemes

Selecting a labeling scheme determines how the tree nodes are labeled. You may select a labeling scheme to assign at the data source level, at the parent node level, or keep it open for customer assignment. You may also choose not to have any labeling scheme. However, if you decide to use any of the labeling schemes, you may need to select the following additional options, to restrict the list of values that appear under the selected tree node.

- **Allow Ragged Nodes:** To include nodes that have no child nodes, and are shorter than the remaining nodes in the entire hierarchy.
- **Allow Skip Level Nodes:** To include nodes that are at the same level but have parent nodes at different levels.

### Restriction of Tree Node Values

You can decide the depth of the tree structure by selecting an appropriate value from the list. Keeping the depth limit open renders an infinite list of values.

Using the following options, you can restrict the list of values that appear for selection under a specific tree node.

- **Date Range:** Specifies whether a selection of nodes should be restricted to the same date range as the tree version.
- **Allow Multiple Root Nodes:** Allows you to add multiple root nodes when creating a tree version.
- **Reference Data Set:** Specifies whether a selection of nodes should be restricted to the same set as the tree.

### Data Source Values and Parameters

Tree data sources have optional data source parameters with defined view criteria and associated bind variables. You can specify view criteria as a data source parameter when creating a tree structure, and edit the parameters when creating a tree. Multiple data sources can be associated with a tree structure and can have well-defined relationships among them.

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#### Note

Parameter values customized at the tree level override the default values specified at the tree-structure level.

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The data source parameters are applied to any tree version belonging to that data source, when performing node operations on the tree nodes. Data source parameters also provide an additional level of filtering for different tree structures. The tree structure definition supports three data source parameter types.

- **Bound Value:** Captures any fixed value, which is used as part of the view criteria condition.
- **Variable:** Captures and binds a dynamic value that is being used by the data source view object. This value is used by the WHERE condition of the data flow.
- **View Criteria:** Captures the view criteria name, which is applied to the data source view object.

You can also specify which of the data source parameters are mandatory while creating or editing the tree structure.

View objects from the ADF business components are used as data sources. To associate the view object with the tree structure, you can pick the code from ADF business component view objects and provide the fully qualified name of the view object, for example, `oracle.apps.fnd.applcore.trees.model.view.FndLabelVO`.

## Specifying Performance Options for a Tree Structure: Points to Consider

Tree structures are heavily loaded with data. As a tree management guideline, use the following settings to improve performance of data rendering and retrieval.

- Row Flattening
- Column Flattening
- Column Flattened Entity Objects
- ADF Business Component View Objects

### Row Flattening

Row flattening optimizes parent-child information for run-time performance by storing additional rows in a table for instantly finding all descendants of a parent without initiating a CONNECT BY query. Row flattening eliminates recursive queries, which allows operations to perform across an entire subtree more efficiently.

To store row flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_RF` table or they can register their own row flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a row-flattened table contains an additional row with Corporation directly being the parent of Region (Corporation-Region).

### Column Flattening

Column flattening optimizes parent-child information for run-time performance by storing an additional column in a table for all parents of a child.

To store column flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_CF` table or they can register their own column flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a flattened table in addition to these columns, contains three new columns: Region, Sales Division, and Corporation. Although positioned next to each other, the column Region functions at the lower level and Corporation at the higher level, retaining the data hierarchy.

### Column Flattened Entity Objects

In the absence of a column-flattened table, if you need to generate the business component view objects for your tree structure for the flattened table, use the tree management infrastructure to correctly provide the fully qualified name of the entity object for the column flattened table.

### ADF Business Component View Objects

View objects from the ADF business components can also be used as data sources, eliminating the need to create new types of data sources. This field is to store the fully qualified name for the business component view object generated by the tree management for business intelligence reporting and usage. The business component view object is a combination of the tree data source and column flattened entity. Using this option prevents data redundancy and promotes greater reuse of existing data, thereby improving the performance of the tree structure.

## Manage Tree Labels

### Tree Labels: Explained

Tree labels are tags that are stored on tree nodes. You can store labels in any table and register the label data source with the tree structure. When a labeling scheme is used for trees, the selected labels are stored in the tree label entity and each tree node contains a reference to a tree label in the labeling scheme.

The following table lists the three ways in which tree labels are assigned to the tree nodes.

Labeling Scheme	Description
Level	Labels that are automatically assigned based on the data source to which the tree node belongs. A level label points to a specific data source. For example, in a tree that reflects the organizational hierarchy of an enterprise, all division nodes appear on one level and all department nodes on another.
Group	Labels that you can arbitrarily assign to tree nodes.
Depth	Labels that are automatically assigned based on the depth of the tree node within the tree. No manual assignment is performed.  <b>Note</b>  In an unbalanced hierarchy, a level may not be equal to depth.

## Manage Trees and Tree Versions

### Managing Trees and Tree Versions: Points to Consider

You can create and edit trees and tree versions depending upon the requirement. A tree can have one or more tree versions. Typically, when changes are made to an existing tree, a new version is created and published.

#### Creating and Editing Trees

Trees are created based on the structure defined in the tree structure. You can create trees, modify existing trees, and delete trees. If you want to copy an existing tree, you can duplicate it. However, only the tree is duplicated and not its versions.

Creating a tree involves specifying the tree definition and specifying the labels that are used on its nodes. If the selected tree structure has data sources and parameters defined for it, they appear on the page allowing you to edit the parameter values at the tree node level.

#### Note

Parameter values customized at the tree level will override the default values specified at the tree-structure level.

#### Creating and Editing Tree Versions

Tree versions are created at the time of creating trees. A tree must contain a version.

Editing an existing tree provides you the choice to update the existing version. You can also edit the existing version that lies nested under the tree in the search results.

When you edit a tree version bearing Active status, the status changes to Draft until the modifications are saved or cancelled.

### Tree Version Audit Results: Explained

Use the tree version audit results to verify the tree version's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

## Running an Audit

An audit automatically runs whenever a tree version is set to active. You can also manually trigger an audit on the Manage Trees and Tree Versions page, using **Actions - Audit**. The Tree Version Audit Result table shows a list of validations that ran against the selected tree version.

## Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Effective Date	The effective start and end dates of the tree version must be valid.	The effective end date is set to a value that is not greater than the effective start date.	Modify the effective start and end dates such that the effective start date is earlier than the effective end date.
Root Node	On the Manage Tree Structures: Specify Data Sources page, if the <b>Allow Multiple Root Nodes</b> check box for the <b>Restrict Tree Node List of Values Based on</b> option is not selected, and if the tree structure is not empty, the tree version must contain exactly one root node. This validation does not take place if the check box is selected.	Even if the check box is deselected, the tree version has multiple root nodes.	Modify the tree version such that there is exactly one root node.
Data Source Max Depth	For each data source in the tree structure, on the Data Source dialog box, if the data source is depth-limited, the data in the tree version must adhere to the specified depth limit. This validation does not apply to data sources for which the <b>Maximum Depth</b> field is set to <b>Unlimited</b> .	The tree version has data at a depth greater than the specified depth limit on one or more data sources.	Modify the tree version such that all nodes are at a depth that complies with the data source depth limit.
Duplicate Node	On the Data Source dialog box, if the <b>Allow Duplicates</b> check box is not selected, the tree version should not contain more than one node with the same primary key from the data source. If the check box is selected, duplicate nodes are permitted.	Even when the check box is deselected, the tree version contains duplicate nodes.	Remove any duplicate nodes from the tree version.

Available Node	All nodes in the tree version should be valid and available in the underlying data source.	<ul style="list-style-type: none"> <li>A node in the tree version does not exist in the data source. Deleting data items from the data source without removing the corresponding nodes from the tree version can result in orphaned nodes in the tree version. For example, if you added node A into your tree version, and subsequently deleted node A from the data source without removing it from the tree version, the validation fails.</li> <li>The tree version contains a tree reference node, which references another tree version that does not exist.</li> </ul>	Remove any orphaned nodes from the tree version. Update tree reference nodes so that they reference existing tree versions.
Node Relationship	All nodes must adhere to the relationships mandated by the data sources registered in the tree structure.	The tree structure has data sources arranged in a parent-child relationship, but the nodes in the tree do not adhere to the same parent-child relationship. For example, if the tree structure has a Project data source with a Task data source as its child, Task nodes should always be under Project nodes in the tree version. This validation fails if there are instances where a Project node is added as the child of a Task node.	Modify the tree version such that the nodes adhere to the same parent-child relationships as the data sources.

SetID Restricted Node	On the Manage Tree Structures: Specify Data sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for each tree node, the underlying node in the data source must belong to the same reference data set as the tree itself. This restriction does not apply when the check box is not selected.	Even when the check box is selected, the tree version has nodes whose data source values belong to a different reference data set than the tree.	Modify the tree version such that all nodes in the tree have data sources with reference data set matching that of the tree.
Label Enabled Node	On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, all nodes should have labels. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.	The tree structure has a labeling scheme but the tree version has nodes without labels.	Assign a label to any node that does not have a label.



Date Restricted Node	<p>On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each node in the underlying data source must have an effective date range same as the effective date range of the tree version. This restriction does not apply if the check box is not selected.</p>	<p>Even when the check box is selected, there are data source nodes that have a date range beyond the tree version's effective date range. For example, if the tree version is effective from Jan-01-2012 to Dec-31-2012, all nodes in the tree version must be effective from Jan-01-2012 to Dec-31-2012 at a minimum. It is acceptable for the nodes to be effective for a date range that extends partly beyond the tree version's effective date range (for example, the node data source value is effective from Dec-01-2011 to Mar-31-2013). It is not acceptable if the nodes are effective for none or only a part of the tree version's effective date range (for example, the node data source value are effective only from Jan-01-2012 to June-30-2012).</p>	<p>Ensure that all nodes in the tree version have effective date range for the effective date range for the tree version.</p>
Multiple Active Tree Version	<p>On the Manage Tree Structures: Specify Definition page, if the <b>Allow Multiple Active Tree Versions</b> check box is not selected for the tree structure, there should not be more than one active tree version under a tree at any time. This restriction does not apply if the check box is selected.</p>	<p>Even when the check box is not selected, there is more than one active tree version in the tree for the same date range.</p>	<p>Set no more than one tree version to Active within the same date range and set the others to inactive or draft status.</p>
Range Based Node	<p>On the Data Source dialog box, if the <b>Allow Range Children</b> check box is not selected, range-based nodes are not permitted from that data source. This restriction does not apply if the check box is selected.</p>	<p>Even when the check box is not selected, there are range-based nodes from a data source.</p>	<p>Ensure that any range nodes in your tree version are from a data source that allows range children.</p>

Terminal Node	On the Data Source dialog box, if the <b>Allow Use as Leaves</b> check box is not selected, values from that data source cannot be added as leaves (terminal nodes) to the tree version. This restriction does not apply if the check box is selected.	Even when the check box is not selected, values from a data source are added as leaf nodes (terminal nodes).	Modify the tree version such that all terminal nodes are from data sources for which this check box is selected.
Usage Limit	On the Data Source dialog box, if the <b>Use All Values</b> option is selected to set the <b>Usage Limit</b> for the data source, every value in the data source must appear as a node in the tree. This restriction does not apply if <b>None</b> option is selected.	Even if the <b>Use All Values</b> option is selected, there are values in the data source that are not in the tree version.	For each data source value that is not yet available, add nodes to the tree version.

## Trees and Data Sources: How They Work Together

Data sources form the foundation for tree management in Oracle Fusion Applications. Tree structures, trees, and tree versions establish direct and real-time connectivity with the data sources. Changes to the data sources immediately reflect on the **Manage Trees and Tree Versions** page and wherever the trees are being used.

### Metadata

Tree structures contain the metadata of the actual data that is used in Oracle Fusion Applications. Tree structures contain the core business logic that is manifested in trees and tree versions.

### Data Storage

Trees and tree versions are built upon the tree structures. They employ the business rules defined in the tree structures and allow an application to select and enable a subset of trees to fulfill a specific purpose in that application.

### Access Control

Source data is mapped to tree nodes at different levels in the database. Therefore, changes you make to the tree nodes affect the source data. Access control set on trees prevents unwanted data modifications in the database. Access control can be applied to the tree nodes or anywhere in the tree hierarchy.

## Adding Tree Nodes: Points to Consider

Tree nodes are points of data convergence that serve as the building blocks of a tree structure. Technically, the node may be stored either in a product-specific table or in an entity that has been established by tree management as the default

storage mechanism. However, since all data in Oracle Fusion Applications usually have a storage home, only user-created data needs to be stored in an entity.

Nodes are attached to tree versions. Whenever you create or edit a tree version, you need to specify its tree node.

## Managing Tree Nodes

You can create, modify, or delete tree nodes on the **Tree Version: Specify Nodes** page. To add a tree node, ensure that the tree structure with which the tree version is associated is mapped to a valid data source. You can also duplicate a tree node if the multiple root node feature is enabled.

## Node Levels

In most trees, all nodes at the same level represent the same kind of information. For example, in a tree that reflects the organizational hierarchy, all division nodes appear on one level and all department nodes on another. Similarly, in a tree that organizes a user's product catalog, the nodes representing individual products might appear on one level and the nodes representing product lines on the next higher level.

When levels are not used, the nodes in the tree have no real hierarchy or reporting structure but do form a logical summarization structure. Strictly enforced levels mean that the named levels describe each node's position in the tree. This is natural for most hierarchies. Loosely enforced levels mean that the nodes at the same visual level of indentation do not all represent the same kind of information, or nodes representing the same kind of information appear at multiple levels. With loosely enforced levels, users assign a level to each node individually. The level is not tied to a particular visual position.

## Node Types

A tree node has the following node types.

- **Single:** Indicates that the node is a value by itself.
- **Range:** Indicates that the node represents a range of values and possibly could have many children. For example, a tree node representing account numbers 10000 to 99999.
- **Referenced Tree:** Indicates that the tree node is actually another version for the tree based on the same tree structure, which is not physically stored in the same tree. For example, a geographic hierarchy for the United States can be referenced in a World geographic hierarchy.

# Define Profile Options

## Profile Options: Explained

Profile options manage configuration data centrally and influence the behavior of applications. Profile options serve as permanent user preferences and

application configuration parameters. You configure profile options with settings for specific contexts or groups of users. Users customize how their user interfaces look and behave by changing the values of available profile options.

Profile options store the following kinds of information.

Type of Information	Profile Option Example
User preferences	Settings to provide access to social networking features
Installation information	Setting to identify the location of a portal
Configuration choices	Settings to change user interface skins and behaviors
Processing options	Settings to affect how much information to log either for an entire site or a specific user

You can add and configure new profile options in addition to configuring predefined profile options that are implemented as updateable.

### Profile Option Definition and Configuration

Application developers add new profile options and configure ones that are not to be updated by other users. Application administrators and implementation consultants configure profile options with profile option values that are implemented as updatable.

Profile option definitions consist of the following.

- Profile option name
- Application and module in the application taxonomy
- Profile option values
- Profile options categories
- Profile option levels
- Profile option level hierarchy

Profile options can appear on any user interface page without indication that a profile option is what is being set.

### Profile Option Values

Some profile options have predefined profile option values.

The Manage Profile Option Values task flow allows an administrator to set updatable profile option values at the available levels, including the user level. You can access the Manage Profile Option Values task starting in the Setup and Maintenance Overview page and searching for profile option tasks.

You can set profile option values at different levels: site, product, and user. The following table provides examples.

Profile Option Level	Value of the Profile Option Level	Profile Option Value	Effect
User	Manager1	UK pound sterling	Access to site and all products shows UK pounds sterling in effect
User	Manager2	US dollar	Access to site and all products shows US dollars in effect
Product	Financials for EMEA	Euro	Unless superseded by a user level value, Euros in effect for Financials for EMEA applications
Site	Site	UK pound sterling	UK pounds sterling in effect for all other users and products

Context such as user session or accessed product determines which profile option value is associated with the profile option name. In the example, if manager1 does not set a profile option value for this profile option, access to Financials for EMEA shows currency in Euros; and access to other products shows currency in UK pounds sterling.

### Profile Option Categories

Categories group profile options based on their functional area. Profile option categories facilitate searching and defining data security.

For example, in Oracle Fusion Receivables, the Transactions profile option category groups profile options related to setting how Receivables transactions are to be processed, such as Require Adjustment Reason.

A profile option can be in more than one category.

### Profile Option Hierarchies and Levels

Application developers specify at which hierarchy level a profile option is enabled. The predefined profile option hierarchy levels are site, product, and user.

The hierarchy levels specified in the profile option definition determine the context in which a profile option value may be set. If the profile option value at a particular level is updatable, an administrator can update the profile option value for that context.

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#### Note

Profile options should only be enabled for context levels that are appropriate for that profile option. For example, a profile option indicating a global configuration setting should not be enabled at the user level, if users cannot choose a different value for that setting.

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For security, one level in the hierarchy is designated as a user level. A profile option may be enabled at any or all hierarchy levels. When enabled at all levels,

the predefined ordering of profile option hierarchy levels gives precedence to the values that are set at the user level over values set at the product and site levels, and precedence to values set at the product level to values set at the site level. If there is no value for the current user, then the product value applies. If there is no value for the user or product, then the site value applies.

The table shows the predefined profile option hierarchy and ordering.

Hierarchy Level	Priority When Multiple Levels Set	Effect on Applications	Example
Site	Lowest	Affect all applications for a given implementation	Currency for the site is set to Euros.
Product	Supersedes Site	Affect all applications of a product family such as Financials	Currency for the Financials products set to UK pound sterling.
User	Highest, supersedes Product	Affect only the experience of the current user	Currency for the user of Financials applications set to US dollars.

You can configure updatable values for profile options at one or more levels depending on which levels are enabled in the profile option definition. When a profile is set at more than one level, higher levels of specificity override lower levels of specificity.

In the example, if the currency setting for the site is UK pounds sterling, but the Financials division works in the Netherlands using the Euro, a manager in the US can override that product level setting at the user level to use US dollars when accessing Financials applications.

In another example, if a profile option called Printer is set only at the site and product levels. When a user logs on, the Printer profile option assumes the value set at the product level, since it is the highest level setting for the profile.

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**Tip**

Set site-level profile option values before specifying values at any other level. The profile option values specified at the site-level work as defaults until profile option values are specified at the other levels.

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## Planning Profile Options: Points to Consider

Plan profile options before defining and configuring them.

The following aspects assist you in better planning how to manage profile options.

- Profile option tasks
- Before creating a profile option
- Profile options data model

## Profile Option Tasks

Users may be able to set their own profile options, depending on settings in the profile option definition. However, not all profile options are visible to end users, and some profile options, while visible, may not be updated by end users.

The following table lists tasks and considerations relevant to planning profile options.

Tasks	Role	Considerations
Planning, creating, and editing a new profile option	Applications developer	Since profile options are for permanent settings, do not use profiles options to cache temporary session attributes.  Add capacity for user preferences and system configuration. Customize profile options with values, value behaviors, validation, category values, and security. Define the levels at which the profile option is enabled.
Configure values in an existing profile option	Applications developer, application administrator, and implementation consultant	Manage the values for existing profile options.
Create and edit profile option categories	Applications developer, application administrator, and implementation consultant	Manage categories for organizing existing profile options.

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### Note

Since a profile option enables a behavior in an application user interface or across applications, a value change made by an end user is reflected in the UI page for managing profile option values.

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### Before Creating a Profile Option

Profile options are best defined for managing configuration data centrally and influencing the behavior of applications.

If the purpose of a profile option setting is specific to a piece of data (typically setup data), it is best implemented as an attribute of that data.

Do not use profile options for behavior that is not configurable.

Profile options exist independent of role.

Do not use profile options to implement function security. For example, an application should not check for a profile option value set to yes to provide access to a page. Do not use profile options to implement data security, such as a profile option value that must be set to a specific value to provide view access to an entity.

Do not use profile options to capture a dynamic system states, such as data stored in a temporary table. Use Global Variables for temporary states instead.

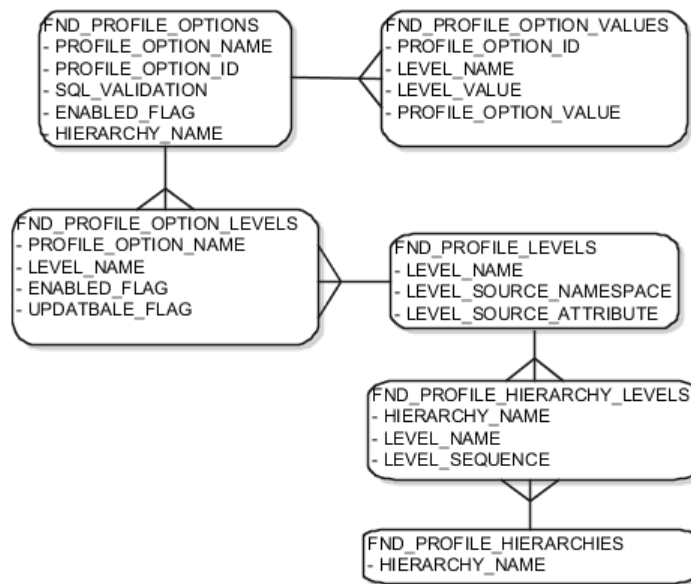
Evaluate if there is a genuine need before creating a profile option. Do not force users to make a decision about an aspect of their application use that is of no concern.

Evaluating need includes looking for duplicate or similar profile options, even in other products, before creating a new one. For example, you do not need multiple profile options to choose a preferred currency.

## Profile Options Data Model

The profile option data model illustrates the relationships among profile option elements.

The figure shows the data model of profile option entities.



For more information about planning profile options, see the Oracle Fusion Applications Developer's Guide.

## Managing Profile Options: Points to Consider

A profile option definition consists of a name for the profile option and valid values. It is defined within a module of the application taxonomy. Application developers manage profile options to create new profile options or modify existing profile option definitions, which includes specifying the levels at which a profile option is enabled and defining values. Implementation consultants and application administrators configure existing profile options by managing the profile option's updatable values, and creating categories that group profile options.

### Configuring a Profile Option

A profile option definition includes information about the owning application and module in the application taxonomy. A start or end date, or both may limit



when a profile option is active. The profile option definition may include an SQL validation statement that determines which values are valid, and the hierarchy levels at which the profile option is enabled and updatable.

To be visible to users, a profile option must be user enabled. You can also allow user updates of the profile option, which means users can make changes to the validation and the profile option level information.

Profile option levels specify at which context level profile values may be enabled or updated. .

Profile options should only be enabled for context levels that are appropriate for that profile option. For example, a profile option indicating a global configuration setting should not be enabled at the user level, if users cannot choose a different value for that setting.

### SQL Validation

The SQL validation of the profile option definition determines what valid profile option values are available. In the absence of validation, any value is valid.

For example, SQL validation provides a means of defining a list of values for the valid values of the profile option. The SQL validation can use lookups to provide the valid values for profile options, such as the lookup codes of the YES\_NO lookup type.

With a profile option called DEFAULT\_LANGUAGE, you can configure the following validation.

```
SELECT DESCRIPTION Language, NLS_LANGUAGE
FROM FND_LANGUAGES_VL
WHERE INSTALLED_FLAG IN ('B','I')
ORDER BY DESCRIPTION
```

This results in the following list of values based on data in FND\_LANUGUAGE\_VL.

Display Value	Hidden Value
American English	US
French	F
Spanish	E

Hidden values must be varchar2(2000).

Profile options generally provide configuration values within a particular context. Though you can create a profile option to be global, think of global values as default values to avoid storing inappropriate configuration information as profile option values. Create global profile options that have corresponding contextual levels.

## Managing Profile Option Categories: Points to Consider

Use profile option categories to group profile options.

## Organizing Profile Options in Categories

As a guideline, group profile options in a single category if the profile options affect the same feature, or if an administrator would likely want to see the profile options in the results of a single search.

Application developers are responsible for the initial groupings and then administrators can make changes based on their specific needs. Administrators can categorize profile options and then easily search on profile options by category.

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### Tip

Define profile option categories first and assign new profile options to existing categories rather than defining profile options first and then defining categories to categorize them.

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## Adding New Profile Option Categories

You can add new categories or add profiles to an existing category.

You can create a profile option category by duplicating an existing category and editing it for a new grouping of profile options. You can add multiple profile options to a category. A profile option can exist in multiple categories.

## Profile Option Order in a Category

Specify a profile option sequence to determine the order of profile options when queried by profile option category.

# Viewing and Editing Profile Option Values: Points to Consider

A profile option value consists of the value and the context or level where the value is set. You specify the context with a pairing of the profile option value's level and level value, such as the product level and the level value GL for Oracle Fusion General Ledger. Adding or modifying profile option values can include deciding which valid values are enabled or updatable at which level.

The SQL validation of the profile option definition determines what valid profile option values are available. In the absence of validation, any value is valid.

## Profile Option Levels and User Session Context

Site level profile option values affect the way all applications run for a given implementation. Product level profile option values affect the way applications owned by a particular product code behave. For example, a product may use profile options set at the product level to determine how regions provided by a common module such as those available from Oracle Fusion Trading Community Model or Customer Relationship Management (CRM) display in a particular work area or dashboard. User level profile option values affect the way applications run for a specific application user.

Whichever profile option value is most specific to a user session, that is the value at which the profile option is set for the user session.

For example, the predefined FND\_LANGUAGE profile option sets the default language. In addition to a site level value, you can define a value for various product or user levels.

Level Name	Level Value	Profile Option Value
Site	InFusion	American English
Product	Customer Center	French
Product	CRM Application Composer	American English
User	Application Administrator	American English
User	Hima	Hindi

Values at the site level take effect for any user unless overridden by a different value set at the more specific levels of product and user. Product level profile option values affect the way applications owned by a particular product code behave. In addition to user level profile option values in applications, selections may be available in the user preferences workspace.

The following table demonstrates the FND\_LANGUAGE profile option settings that would apply to specific users, based on the example above. For example, the user Hima is using the CRM Application Composer product, in the InFusion site. The example above shows that this profile option is set to Hindi at the user level for Hima. Because user is the highest applicable level for Hima, the applicable profile option value is Hindi for Hima.

Site	Product	User	Highest Available Level	Active Profile Option Value
InFusion	CRM Application Composer	Hima	User	Hindi
Acme	Payables	Application Administrator	User	American English
InFusion	Customer Center	Guillaume	Product	French
InFusion	Payables	Implementation Consultant	Site	American English
Acme	Payables	Implementation Consultant	none	no value

---

#### Note

More than one site level value is relevant in an enterprise with multiple tenants using a single instance of Oracle Fusion Applications.

---

#### Effect of Changes to Profile Option Values

Any change you make to a user level profile option has an immediate effect on the way applications run for that session. When you sign in again, changes made to your user level profile options in a previous session are still in effect. When

you change profile option value at the product level and no user level values are set, you see the update immediately, but other users may not see the changed value until signing out and back in. When you change a profile option value and the new value affects other users, the change takes effect only when users sign in the next time.

Changes to site level profile options take effect for any user session that is started after the setting has been changed. Changes to site or user level profile options do not affect any user sessions that are already in progress when the change is made.

Changes to site or user level profile options take effect for any C or PL/SQL processes, such as scheduled jobs, that are launched after the setting has been changed. Profile option changes do not affect C or PL/SQL processes that are already running.

## Define Flexfields

### Flexfields: Overview

Flexfields are a mechanism for configuring and extending applications to meet enterprise-specific needs. Using flexfields, you can extend application objects to capture data that would not otherwise be tracked by the application, or configure intelligent key codes comprised of meaningful parts according to your business practices. Flexfields encapsulate all of the pieces of information related to a specific purpose, such as a key identifying a particular purchase, or the components of a student's contact information, or the features of a product in inventory.

A flexfield is an extensible data field consisting of subfields. Each subfield is a flexfield segment. You configure segments to capture enterprise-specific information. Each segment captures a single atomic value, has a name, and maps to a pre-reserved column in the applications database.

Flexfields allow enterprise requirements to be met without changing the data model. Different data can be captured on the same database table.

Application developers create a flexfield and register it so that it is available for configuration. Administrators and implementation consultants setup or configure segments and other properties of the available flexfields. End users see flexfield segments as attributes of information displayed in the application user interface. They enter a value for the attribute. The value may be selected from a list of valid values or entered as free-form text that complies with formatting rules.

Manage flexfields using tasks you access by starting in the Setup and Maintenance Overview page.

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#### Tip

Use the **Business Object** parameter to search Application Key Flexfields, Application Descriptive Flexfields, and Application Extensible Flexfields to find

all tasks related to flexfields. To manage any flexfield across all Oracle Fusion Applications products, search for the Define Flexfields task list and access the Manage Descriptive Flexfields, Manage Extensible Flexfields, and Manage Key Flexfields tasks.

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## Types of Flexfields

The following three types of flexfields are available in Oracle Fusion Applications and provide a means to customize applications features without programming.

- Key
- Descriptive
- Extensible

For example, in Oracle Fusion Financials, key flexfields represent objects such as accounting codes and asset categories. Generally, correct operations of a product depend on key flexfield setup. In Oracle Fusion Payables, a descriptive flexfield expands a customizable area of an invoices page by providing subfields for collecting invoice details. You can implement these subfields, which are descriptive flexfield segments, as context sensitive so they appear only when needed. Extensible flexfields are similar to descriptive flexfields, but provide additional advanced features. Generally setup of descriptive and extensible flexfields is optional because their segments capture additional information that is stored attributes on an entity

## Segments

All flexfields consist of segments. Segments represent attributes of information. They can appear globally wherever the flexfield is implemented, or based on a structure or context.

You define the appearance and meaning of individual segments when configuring a flexfield.

A key flexfield segment commonly describes a characteristic of the entity identified by the flexfield, such as a part number structured to include information about the type, color, and size of an item. A descriptive flexfield segment represents an attribute of information that describes a characteristic of the entity identified on the application page, such as details about a device containing components, some of which are globally present on the page while others are contextually dependent on the category of the device.

## Value Sets

A value set is a predefined, named group of values that can be used to validate the content of a flexfield segment.

You configure a flexfield segment with a value set that establishes the valid values that an end user can enter for the segment. You define the values in a value set, including such characteristics as the length and format of the values. You can specify formatting rules, or specify values from an application table or predefined list. Multiple segments within a flexfield, or multiple flexfields, can share a single value set.

## Structure and Context

Key flexfields have structure. Descriptive flexfields and extensible flexfields have context.

Each key flexfield structure is a specific configuration of segments. Adding or removing segments, or rearranging their order, produces a different structure. The database columns on which segments in different structures are based can be reused in as many structures as desired.

Descriptive flexfield segments can be context-sensitive, which means available to an application based on a context rather than globally available wherever the flexfield appears. (which means available to an application based on a context value rather than globally available wherever the flexfield appears. A descriptive flexfield context is a set of context-sensitive segments that store information related to the same context value. You define contexts as part of configuring a descriptive flexfield. End users see global segments, as well as any context-sensitive segments that apply to the selected context value.

Extensible flexfield segments are made available to an application based upon a category value. An extensible flexfield context serves as a container for related segments, used to organize the various segments that are applicable to a category value. You define contexts with context-sensitive segments and associate them to categories as part of configuring an extensible flexfield. End users see the segments displayed in subregions, one for each context associated to the selected category value.

In descriptive flexfields and extensible flexfields, the database columns on which context-sensitive segments are based can be reused in as many contexts as desired.

## Deployment

A flexfield must be deployed to display its current definition in a runtime application user interface. For example, if the deployment status is Edited, the flexfield segments may appear in the UI based on the flexfield definition at the time of last deployment, rather than the current definition.

You can deploy a flexfield as a sandbox for testing the configuration before deploying it to the mainline for all users.

## Runtime Appearance

In an application user interface, descriptive flexfield segments appear as label and field pairs or as a table of fields where the column headers correspond to the labels. The fields represent the flexfield segments and accept entered input or a selection from a list of choices that correspond to the segment's assigned value set. Extensible flexfield segments appear grouped within labeled regions, where each grouping is a context and the region labels are the context names.

Use the **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area to identify the location of the descriptive and key flexfields on the runtime page. Flexfields in highlight mode display an information icon to access details about the flexfield, and an edit icon to manage the flexfield.

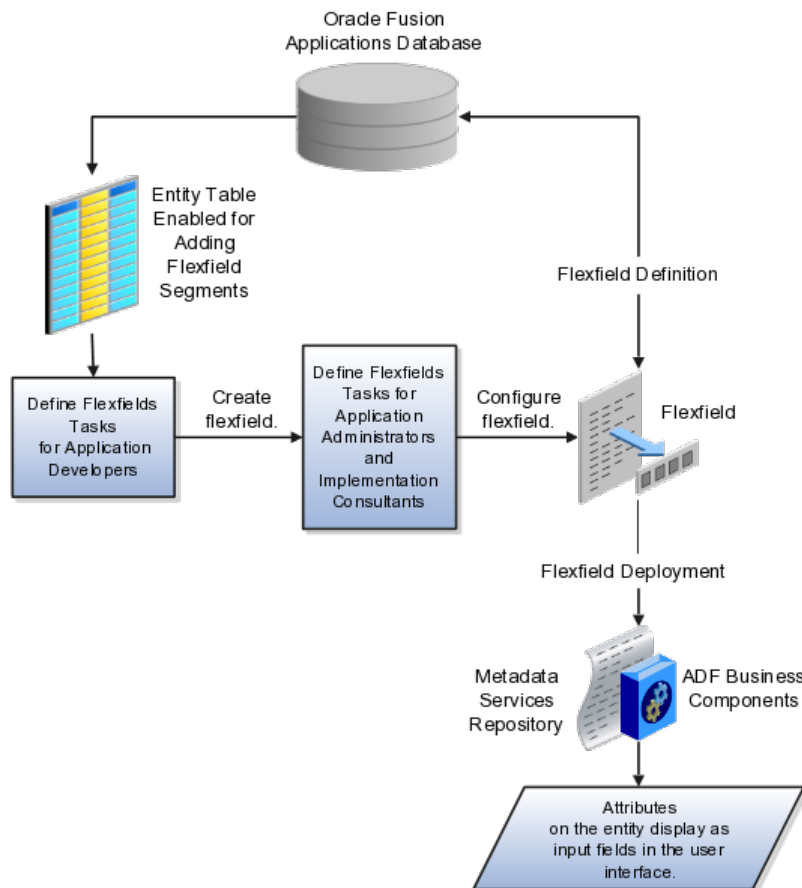
All segments of a single flexfield are grouped together by default. The layout and positions of the flexfield segments depend on where the application developer places the flexfield on the page. Flexfields may also be presented in a separate section of the page, in a table, or on their own page or subwindow.

You can use Oracle Composer to edit the layout, position, or other display features of the flexfield segments.

## Flexfields and Oracle Fusion Application Architecture: How They Work Together

Administrators configure flexfield segments to capture data that represents the values of attributes. Flexfield segments represent attributes of entities (business objects). Most business objects are enabled for descriptive flexfields. Some business objects are enabled for extensible flexfields.

The figure shows the layers of a flexfield: the business entity table and metadata in the database, business components that are Application Development Framework (ADF) objects or ADFbc objects derived from the metadata and stored in the Metadata Services Repository (MDS), and the user interface where the input fields defined by the flexfield segments are rendered. The flexfield definition consists of all the metadata defined during configuration and stored in the database.



Application developers create a flexfield and register it so that it is available for configuration. Administrators and implementation consultants configure segments and other properties of the available flexfields. This information is stored as additional flexfield metadata in the database. Deploying the flexfield generates ADF business components based on the flexfield metadata in the database.

## **Integration**

A flexfield affects the Web Services Description Language (WSDL) schemas exposed by ADF services and used by SOA composites. The Web services that expose base entity data also expose flexfield segment data.

Attributes incorporate into SOA infrastructure (BPEL, Rules) and integrate with business intelligence (Oracle Business Intelligence, Extended Spread Sheet Database (ESSbase)).

Flexfield configurations are preserved across Oracle Fusion Applications updates.

## **Deployment**

The metadata for the flexfield is stored in the application database as soon as you save your configuration changes. Deploying the flexfield generates the ADF business components so that the runtime user interface reflects the latest definition of the flexfield in the metadata.

## **Importing and Exporting**

You can export and import flexfields with a deployment status of Deployed or Deployed to Sandbox across instances of Oracle Fusion Applications using the Setup and Maintenance Overview page. Ensure a flexfield is eligible for migration (by verifying that it has successfully deployed) prior to attempting the migration.

## **Runtime**

For a flexfield to reflect the latest flexfield definition at runtime it must be deployed. The user interface accesses a business object and the deployed flexfield definition indicates which business object attributes the flexfield captures values for. If you add display customizations for a flexfield using Oracle Composer, these are customizations on the page so that the same flexfield segments can appear differently on various different pages.

Values entered for segments are validated using value sets.

## **Flexfield Management**

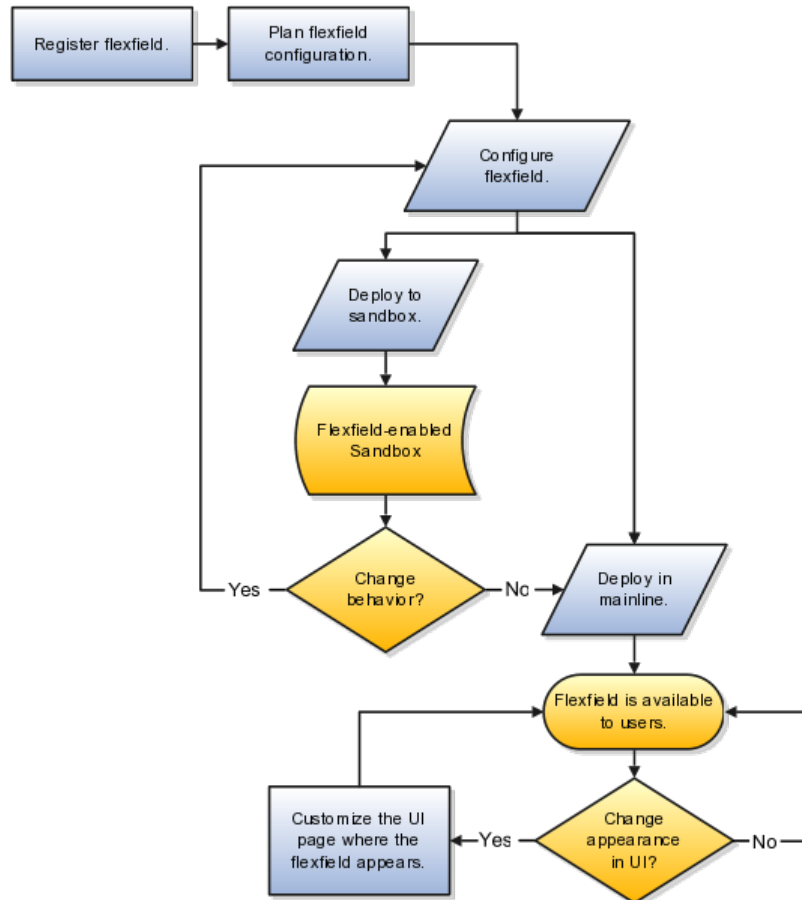
### **Managing Flexfields: Points to Consider**

Managing flexfields involves, registering, planning, and configuring flexfields.

You plan and configure the registered flexfields provided in your applications by applications developers. How you configure flexfield segments determines how the flexfield segments appear to end users. Optionally, you can customize the UI page to change how the flexfield segments appear to end users on that page.



The figure shows the processes involved in making flexfields available to end users. The tasks in the Define Flexfields activity allow administrators to configure and deploy flexfields. If you deploy a flexfield to a sandbox and decide not to make further changes, you select the flexfield in the Manage Flexfields tasks of the Define Flexfields activity and deploy the flexfield in the mainline so it is available to users.



## Registering Flexfields

Application development registers flexfields so they are available to administrators and implementation consultants for configuration.

Application development creates the capacity of database tables to support flexfields so an enterprise can capture specific information about an entity. Many flexfields are predefined in Oracle Fusion Applications.

A flexfield must be registered before it can be configured.

For more information on registering flexfields, see Oracle Fusion Applications: Developer's Guide.

## Planning Flexfields

All flexfields consist of segments which represent attributes of an entity. The values an end user inputs for an attribute are stored in a column of the entity

table. Application development enables columns of entity tables for use in flexfields during flexfield registration.

A flexfield must be registered before it can be configured. Before configuring new flexfield segments for your enterprise, be sure to plan their implementation carefully.

For more information on planning flexfield configuration, see Oracle Fusion Applications Extensibility Guide.

## Configuring Flexfields

Administrators or implementors configure flexfields so they meet the needs of the enterprise. Some flexfields require configuration to make an application operate correctly.

Configuring a flexfield includes the following.

- Defining value sets against which the values entered by end users are validated
- Defining the structure or context of the segments in the flexfield
- Specifying the prompt, length and data type of each flexfield segment
- Specifying valid values for each segment, and the meaning of each value within the application

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### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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Some descriptive flexfields provide parameters that are attributes of the same or related entity objects. You use parameters to set the initial value or derivation value of an attribute from external reference data, such as a column value or a session variable, rather than from user input.

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### Note

Adding segments to represent additional attributes is considered a custom task. For more information, see the Oracle Fusion Applications Extensibility Guide.

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For more information on adding columns to a table, see the Oracle Fusion Applications Developer's Guide.

For more information on configuring flexfields for custom attributes, see also the Oracle Fusion Applications Extensibility Guide.

## Enabling a Flexfield Segment for Business Intelligence

You can enable key flexfield segment instances and descriptive flexfield segments for business intelligence if the flexfield is registered in the database as an Oracle Business Intelligence-enabled flexfield. For more information on enabling segments for business intelligence, see points to consider when enabling key and descriptive flexfield segments for business intelligence.

## Deploying Flexfields

After you configure or change a flexfield, you must deploy it to make the latest definition available to end users.

You deploy a flexfield in the mainline for general use in a test or production environment, or you can deploy a flexfield as a flexfield-enabled sandbox to confirm that it is correctly configured before deploying it to the mainline.

Deploying a flexfield results in a deployment status. Once deployed, the deployment status indicates the state of the currently configured flexfield relative to the last deployed definition

## Optionally Changing How Flexfield Segments Appear in a User Interface Page

The flexfield attributes you define integrate with the user interface pages where users access the attributes' business object. Application development determines the UI pages where business objects appear and the display patterns used by default to render flexfield segments.

You can customize the appearance of the flexfield segments in the UI page using Oracle Composer once the flexfield is deployed to the mainline.

For more information on customizing flexfield appearance with Oracle Composer, see guidance on customizing existing pages in Oracle Fusion Applications Extensibility Guide.

For more information on planning flexfields or customizing them beyond the configuration possible in the Define Flexfields tasks, see Oracle Fusion Applications Extensibility Guide.

For more information on creating flexfields and adding them to a UI page, see Oracle Fusion Applications Developer's Guide.

## Identifying Flexfields on a Runtime Page

The **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area identifies the location of descriptive and key flexfields on the runtime page by displaying an information icon for accessing details about each flexfield.

Even if a flexfield has not yet been deployed and does not appear on the runtime page in normal view, it appears in the Highlight Flexfield view for that page. **Highlight Flexfields** accesses the current flexfield metadata definition.

Use the highlighted flexfield's edit icon to manage the descriptive or key flexfield directly. Alternatively, note a highlighted flexfield's name to search for it in the tasks for managing flexfields.

## Flexfield Segment Properties: Explained

Independent of the value set assigned to a segment, segments may have properties such as validation.

## 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, so the order date must be on or before the ship date, and consequently 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 the same data type.
- Both segments must be part of the same structure in a key flexfield or part of the same context in a descriptive flexfield or extensible flexfield.
- The low value segment must have a lower sequence number than the high value segment.
- Non-range validated segments can exist between a range validated pair, but range validated pairs cannot overlap or be nested.

You can configure as many range validated pairs as you want within the same flexfield. Your application automatically detects and applies range validation to the segment pairs that you define, in sequence order. It must encounter a low value segment first, and the next range validated segment it encounters 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.

## Code Naming Conventions

When entering codes such as segment code, enter a code consisting of the characters A-Z, a-z, 0-9, with a non-numeric leading character.

The code is used in the flexfield's element in the XML schema for web services. You can maximize the readability of the schema by naming codes with a leading alphabetic character followed by alphanumeric characters. The use of spaces, underscores, multi-byte characters, and leading numeric characters, which are all encoded in XML schemas, make the codes in the schema element difficult to read.

This applies to context code in descriptive and extensible flexfields, and to structure instance code in key flexfields.

## Flexfields and Value Sets: How They Work Together

Value sets are specific to your enterprise. When gathering information using flexfields, your enterprise's value sets validate the values 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.

## Defining and Assigning Value Sets

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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### Caution

Be sure changes to a shared value set are compatible with all flexfield segments using the value set.

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### 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 values 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.

### Deployment

When you deploy a flexfield, the value sets assigned to the segments of the flexfield provide end users with the valid values for the attributes represented by the segments.

## Defaulting and Deriving Segment Values: Explained

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

To synchronize a segment's value with another field's value whenever it changes, specify the derivation value to be the flexfield parameter from which to derive the attribute's value. Whenever the parameter value changes, the attribute's value is changed to match. If you derive an attribute from a parameter, consider making the attribute read-only, as values entered by users are lost whenever the parameter value changes.

When defaulting or deriving a default value from a parameter, only those attributes designated by development as parameters are available to be chosen.

Different combinations of making the segments read only or editable in combination with the default or derivation value or both, have different effects.

Initial runtime behavior corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it cannot subsequently be changed through the user interface. If the default value is not 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 runtime behavior	Runtime behavior after parameter changes
None	No	Yes	No initial segment value	Changed parameter derivation value updates segment value

Constant	Yes	No	Default segment value	N/A
Constant	Yes	Yes	Default segment value	Changed parameter derivation value updates segment value
Parameter	Yes	No	Default segment value is the parameter's default value	N/A
Parameter	Yes	Yes, and same as default value	Default segment value is parameter's default and derivation value	Changed parameter derivation value updates segment value
Parameter	Yes	Yes, and different from default value	Default segment value is parameter's default value	Changed parameter default value does not update segment value. Only the changed derivation value updates the segment value.

## Flexfield Deployment

### Flexfield Deployment: Explained

To use a flexfield at runtime, the flexfield must have been deployed at least once. Deployment generates or refreshes the Application Development Framework (ADF) business component objects that render the flexfield in a user interface. Flexfields are deployed for the first time during the application provisioning process.

After you configure or change a flexfield, you must deploy it to make the latest definition available to end users. You can deploy a flexfield to a sandbox for testing or to the mainline for use.

### Deployment Status

Every flexfield has a deployment status.

A flexfield can have the following deployment statuses.

Deployment Status	Meaning
Edited	The flexfield metadata definition has not been deployed yet. Updates of the metadata definition are not applied in the runtime environment yet.
Patched	The flexfield metadata definition has been modified through a patch or through a data migration action, but the flexfield has not yet been deployed so the updated definition is not reflected in the runtime environment.

Deployed to Sandbox	The current metadata for the flexfield is deployed in ADF artifacts and available as a flexfield-enabled sandbox. The status of the sandbox is managed by the Manage Sandboxes task available to the Administrator menu of the Setup and Maintenance work area.
Deployed	The current metadata for the flexfield is deployed in ADF artifacts and available to end users. There have not been any changes to the flexfield since it was last deployed in the mainline.
Error	The deployment attempt in the mainline failed.

---

### Note

Whenever a value set definition changes, the deployment status of a flexfield that uses that value set changes to edited. If the change results from a patch, the deployment status of the flexfield changes to patched.

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## Initial Deployment Status of Flexfields

The Oracle Fusion Applications installation loads flexfield metadata into the database. This initial load sets the flexfield status to Edited to indicate that the flexfield has not been deployed yet. The application provisioning process during installation deploys the predefined flexfields of the provisioned applications, which sets their status to Deployed if no errors are encountered.

When accessing a provisioned application, deployed flexfields are ready to use. In some cases, flexfield availability at runtime requires setup, such as defining key flexfields.

## Metadata Validation

Use the Validate Metadata command to view possible metadata errors before attempting to deploy the flexfield. Metadata validation is the initial phase of the Deploy and Deploy to Sandbox commands. By successfully validating metadata before running the deployment commands, you can avoid failures in the metadata validation phase of a deployment attempt. Errors in the metadata validation phase of deployment cause the deployment attempt to abort. Metadata validation results do not affect the deployment status of a flexfield.

## Flexfield Deployment Status: How It Is Calculated

Flexfield deployment status indicates how the flexfield metadata definition in the Oracle Fusion Applications database relates to the Application Development Framework (ADF) business components generated into a Metadata Services (MDS) repository.

## Settings That Affect Flexfield Deployment Status

If you have made a change to a flexfield and expect a changed deployment status, be sure you have saved your changes. No settings affect flexfield deployment status.

## How Flexfield Deployment Status Is Calculated

If the flexfield definition has been edited through the Define Flexfields activity task flows, the status is Edited. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. Any change, including if a value set used in a flexfield changes, changes the deployment status to Edited. If a flexfield has never been deployed, its status is Edited.

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### Note

When an application is provisioned, the provisioning framework attempts to deploy all flexfields in that application.

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If you deploy the flexfield to a sandbox successfully, the status is Deployed to Sandbox. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a sandbox MDS repository. Whether the sandbox is active or not does not affect the deployment status. If the flexfield was deployed to a sandbox and has not been edited or re-deployed to the mainline since then, the status remains Deployed to Sandbox independent of whether the sandbox is active, or who is viewing the status.

If you deploy the flexfield successfully, meaning to the mainline, the status is Deployed. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a mainline MDS repository. Change notifications are sent when a flexfield is deployed successfully to the mainline.

If either type of deployment fails so the current flexfield definition is not deployed, the status is Error. The deployment error message gives details about the error. The latest flexfield metadata definition in the Oracle Fusion application likely diverges from the latest successfully deployed flexfield definition.

If the flexfield definition has been modified by a patch, the status is Patched. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. If the flexfield definition was Deployed before the patch and then a patch was applied, the status changes to Patched. If the flexfield definition was Edited before the patch and then a patch was applied, the status will remain at Edited to reflect that there are still changes (outside of the patch) that are not yet in effect.

When a deployment attempt fails and you can access the Deployment Error Message for details.

## Deploying a Flexfield-Enabled Sandbox: How It Works With Mainline Metadata

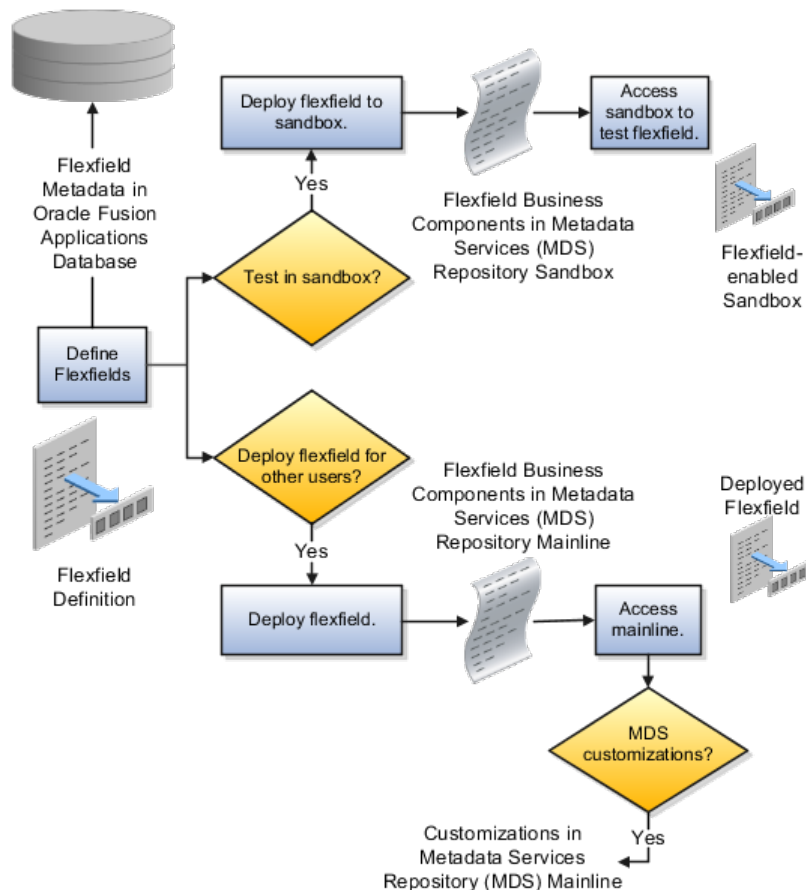
The flexfield definition in a sandbox corresponds to the flexfield metadata definition in the Oracle Fusion Applications database at the time the flexfield was deployed to the sandbox. When the flexfield is ready for end users, the flexfield must be deployed to the mainline.



A flexfield-enabled sandbox uses the following components.

- Flexfield metadata in the Oracle Fusion Applications database
- Flexfield business components in a sandbox Metadata Services (MDS) repository
- User interface customizations for the flexfield in the mainline MDS repository

The figure shows the two types of deployment available in the Manage Flexfield tasks of the Define Flexfields activity. Deploying a flexfield to a sandbox creates a sandbox MDS repository for the sole purpose of testing flexfield behavior. The sandbox is only accessible to the administrator who activates and accesses it, not to users generally. Deploying a flexfield to the mainline applies the flexfield definition to the mainline MDS repository where it is available to end users. After deploying the flexfield to the mainline, customize the page where the flexfield segments appear. Customization of the page in the sandbox MDS repository cannot be published to the mainline MDS repository.



### Sandbox Metadata Services Repository Data

Deploying the flexfield to a sandbox generates the Application Development Framework (ADF) business components of a flexfield in a sandbox MDS repository for testing in isolation.

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#### Warning

Do not make changes to flexfield segment display features in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.

---

### **Mainline Metadata Services Repository Data**

The Oracle Fusion Applications database stores the single source of truth about a flexfield. From this the ADF business component objects that implement the flexfield in the runtime user interface are generated in the mainline MDS repository when the flexfield is deployed.

## **Deploying a Flexfield-Enabled Sandbox: Points to Consider**

Deploying a flexfield to a sandbox creates a flexfield-enabled sandbox . Each flexfield-enabled sandbox contains only one flexfield.

You can test the runtime behavior of a flexfield in the flexfield-enabled sandbox. If changes are needed, return to the Define Flexfield tasks to change the flexfield definition.

When you deploy a flexfield to sandbox, the process reads the metadata about the segments from the database, generates flexfield Application Development Framework (ADF) business component artifacts based on that definition, and stores in the sandbox only the generated artifacts derived from the definition.

### **Sandbox MDS Repository Data**

The sandbox data allows you to test the flexfield in isolation without first deploying it in the mainline where it could be accessed by users.

---

#### **Warning**

Do not make changes to flexfield segment display features in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.

---

### **Managing a Flexfield-Enabled Sandbox**

When you deploy a flexfield as a sandbox, that flexfield-enabled sandbox automatically gets activated in your user session. When you sign back in to see the changes, the sandbox is active in your session.

You can only deploy a flexfield to a sandbox using the Define Flexfields task flow pages.

You also can use the Manage Sandboxes feature in the Administration menu of the Setup and Maintenance work area to activate, access, or delete a flexfield-enabled sandbox.

---

#### **Note**

Whether you use the Define Flexfields or Manage Sandboxes task flows to access a flexfield-enabled sandbox, you must sign out and sign back in before you can see the changes you deployed in the runtime.

You cannot publish the flexfield from the sandbox to the mainline. You must use the Define Flexfields task flow pages to deploy the flexfield for access by users of the mainline because the flexfield configuration in the mainline is the single source of truth.

## Deploying Flexfields Using the Command Line: Explained

You can use the Manage Key Flexfields, Manage Descriptive Flexfields, and Manage Extensible Flexfields tasks to deploy flexfields. You can also use WebLogic Server Tool (WLST) commands for priming the Metadata Services (MDS) repository with predefined flexfield artifacts and for deploying flexfields.

The table describes the available commands.

WebLogic Server Tool Command	Description
<code>deployFlexForApp</code>	Deploys all flexfields for the specified enterprise application. Only flexfields whose status is other than deployed are affected by this command unless the option is enabled to force all flexfields to be deployed regardless of deployment status.  Initial application provisioning runs this command to prime the MDS repository with flexfield artifacts.
<code>deployFlex</code>	Deploy a single flexfield regardless of deployment status
<code>deployPatchedFlex</code>	Deploys flexfield changes that have been delivered using a flexfield Seed Data Framework (SDF) patch. Deploys flexfields that have a Patched deployment status.
<code>deleteFlexPatchingLabels</code>	Displays MDS label of flexfield changes for viewing and deleting patching labels.

Executing these commands outputs a report at the command line. The report provides the following information for every flexfield that is processed.

- Application identity (APPID)
- Flexfield code
- Deployment result, such as success or error

In case of errors, the report lists the usages for which the errors were encountered. If a runtime exception occurs, the output displays the traceback information. For each WLST flexfield command, adding the `reportFormat='xml'` argument returns the report as an XML string.

Consider the following aspects of command line deployment.

- Preparing to use the WLST flexfield commands

- Using the `deployFlexForApp` command
- Using the `deployFlex` command
- Using the `deployPatchedFlex` command
- Using the `deleteFlexPatchingLabels` command
- Exiting the WLST and checking the results

## Preparing To Use the WLST Flexfield Commands

You can only execute the WLST flexfield commands on a WebLogic Administration Server for a domain that has a running instance of the Oracle Fusion Middleware Extensions for Applications (Applications Core) Setup application.

For more information on deploying the Applications Core Setup application, see the Oracle Fusion Applications Developer's Guide.

Ensure that the AppMasterDB data source is registered as a JDBC data source with the WebLogic Administration Server and points to the same database as the ApplicationDB data source.

Start the WebLogic Server Tool (WLST) tool, if it is not currently running.

UNIX:

```
sh $JDEV_HOME/oracle_common/common/bin/wlst.sh
```

Windows:

```
wlst.cmd
```

Connect to the server, replacing the user name and password arguments with your WebLogic Server user name and password.

```
connect('wls_username', 'wls_password', 'wls_uri')
```

The values must be wrapped in single-quotes. The `wls_uri` value is typically `T3://localhost:7101`.

For more information on the WLST scripting tool, see the Oracle Fusion Middleware Oracle WebLogic Scripting Tool.

## Using the `deployFlexForApp` Command

The `deployFlexForApp` command translates the product application's predefined flexfield metadata into artifacts in the MDS repository.

---

### Important

This command is run automatically when you provision applications. However, after custom applications development, you must run the `deployFlexForApp` command after you configure your application to read the flexfield artifacts from the MDS repository and before you log into the application for the first time, even if there is no predefined flexfield metadata.

---

This command does not deploy flexfields that have a status of Deployed unless the force parameter is set to 'true' (the default setting is 'false').

For more information on priming the MDS partition with configured flexfield artifacts, see the Oracle Fusion Applications Developer's Guide.

From the WLST tool, execute the following commands to deploy the artifacts to the MDS partition, replacing `product_application_shortname` with the application's short name wrapped in single-quotes.

```
deployFlexForApp('product_application_shortname'[, 'enterprise_id']  
[, 'force'])
```

In a multi-tenant environment, replace `enterprise_id` with the Enterprise ID to which the flexfield is mapped. Otherwise, replace with 'None' or do not provide a second argument.

To deploy all flexfields regardless of their deployment status, set force to 'true' (the default setting is 'false'). If you want to deploy all flexfields in a single-tenant environment, you either can set `enterprise_id` to 'None', or you can use the following signature:

```
deployFlexForApp(applicationShortName='product_application_shortname', force='true')
```

---

### Tip

The application's short name is the same as the application's module name.

---

For more information about working with application taxonomy, see the Oracle Fusion Applications Developer's Guide.

## Using the `deployFlex` Command

From the WLST tool, execute the following command to deploy a flexfield, replacing `flex_code` with the code that identifies the flexfield, and replacing `flex_type` with the flexfield's type, which is either DFF, KFF, or EFF.

```
deployFlex('flex_code', 'flex_type')
```

The values must be wrapped in single-quotes.

## Using the `deployPatchedFlex` Command

Use the `deployPatchedFlex` command for situations where the patching framework does not invoke the command, such as when an application has been patched offline.

If the installation is multi-tenant enabled, the command deploys all patched flexfields for all enterprises. This command is not intended to be invoked manually.

Check with your provisioning or patching team, or the task flows for managing flexfields, to verify that the flexfield has a Patched deployment status.

From the WLST tool, execute the following command to deploy the artifacts to the MDS partition of all flexfields that have a READY status.

```
deployPatchedFlex()
```

Execute the following command to deploy all flexfields that have either a READY status or an ERROR status.

```
deployPatchedFlex(mode='RETRY')
```

## Using the deleteFlexPatchingLabels Command

Whenever you deploy flexfield changes to MDS using the `deployPatchedFlex()` WLST command, an MDS label is created in the format `FlexPatchingWatermarkdate+time`. Use the `deleteFlexPatchingLabels` command to inquire about and delete these labels.

From the WLST tool, execute the `deployPatchedFlex()` command with no arguments to delete the flexfield patching labels.

To output a list of flexfield patching labels, execute the command with the `infoOnly` argument, as follows:

```
deleteFlexPatchingLabels(infoOnly='true')
```

## Exiting the WLST and Checking the Results

To exit the tool, execute the following command.

```
disconnect()
```

Optionally, sign into the application, access user interface pages that contain flexfields, and confirm the presence of flexfields for which configuration exists, such as value sets, segments, context, or structures.

## Manage Value Sets

### Value Sets: Explained

A value set is a set of valid values that you assign to a flexfield segment.

An end user enters a value into a flexfield segment while using the application. The flexfield validates the segment against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

---

#### Caution

Be sure changes to a shared value set are compatible with all flexfields segments using the value set.

---

Defining value sets involves making decisions about the following.

- Validation

- Security
- Precision and scale
- Usage and deployment

## Validation

The following types of validation are available for value sets.

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set does not present a list of valid values to users.

You can build a tree structure from the values in an independent value set whose data type is character.

---

### Note

Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

---

For more information, see the Oracle Fusion Applications Extensibility Guide.

## Security

Value set security only works in conjunction with usage within flexfield segments. If a value set is used standalone, meaning outside a flexfield, value set security is not applied, but Oracle Fusion data security is enforced.

You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. If a value set is secured, every usage of it in any flexfield is secured. It is not possible to disable security for individual usages of the same value set.

Value set security applies to independent, dependent, or table-validated value sets.

Value set security applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security does not determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

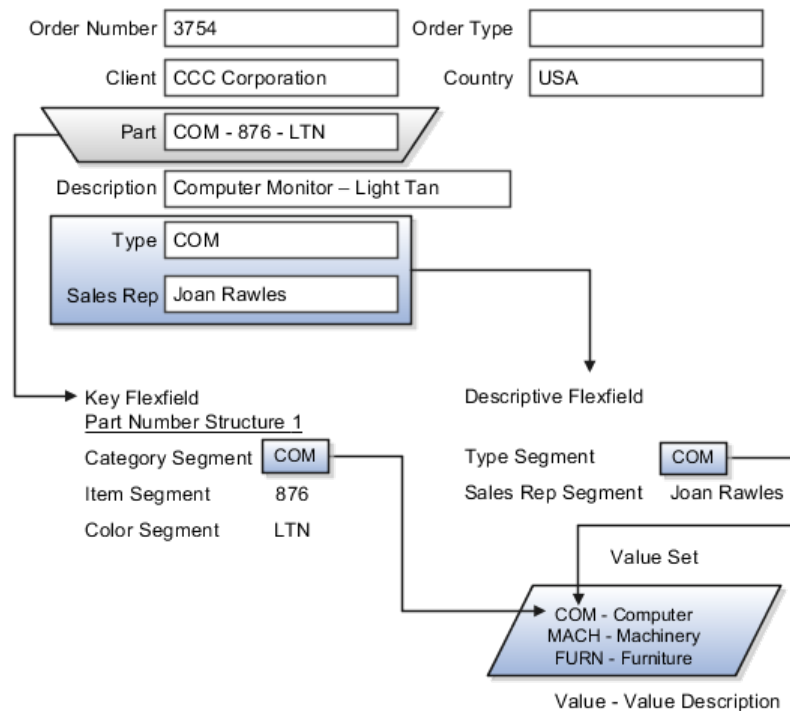
## Precision and Scale

For a value set with the data type Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

## Usage and Deployment

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.



For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.



## Defining Value Sets: Critical Choices

Validation and usage of value sets determine where and how end users access valid values for attributes represented by flexfield segments.

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### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

---

### Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets. The data type must be character and the maximum length of the values being stored must not be larger than column length of the context.

### Format Only Validation

The format only validation type enables end users to enter any value, as long as it meets your specified formatting rules. That is, the value must not exceed the maximum length you define for your value set, and it must meet any format requirements for that value set.

For example, if the value set allows only numeric characters, your user could enter the value 456 (for a value set with maximum length of three or more), but could not enter the value ABC. A format only value set does not otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how many digits should follow the radix separator.

### Interdependent Value Sets

You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. You use a dependent value set to limit the list of values for a given segment based on the value that the end user has chosen for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of U.S. states with values such as CA, NY, and so on. Then you define a dependent value set of U.S. cities, with values such as San Francisco and Los Angeles that are valid for the independent value CA, and New York City and Albany that are valid for the independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. End users do not need to choose a value for another segment first to have access to the subset value set.

## Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table (for example, a table of vendor names). Table validation allows you to enable a segment to depend upon multiple prior segments in the same context or structure.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it does not have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

## Range

In the case of format, independent, or dependent value sets, you can specify a range to further limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100. If you use a table value set, you cannot reference flexfield segments in the WHERE clause of the value set. For example, the WHERE clause cannot reference a segment or a value set.

## Security

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

When you enable security on a table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set should not assume anything about the bind variables; it must assume the whole list of values is available and write the rule, for example, to allow x, or to allow y and z. By default in data security all values are denied, and show only rows to which access has been provided.

## Maintenance

There is no need to define or maintain values for a table-validated or subset value set, as the values are managed as part of the referenced table or independent value set, respectively.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select **Translatable**. This does not require you to provide translated values now, but you cannot change this option if you decide to provide them later.

For more information about defining value sets, see the Oracle Fusion Applications Extensibility Guide.

## Manage Descriptive Flexfields

### Descriptive Flexfields: Explained

Descriptive flexfields provide a way to add custom attributes to entities, and define validation and display properties for them. These attributes are generally standalone. They don't necessarily have anything to do with each other and are not treated together as a combination.

All Oracle Fusion Applications business entities that you can access are enabled for descriptive flexfields. Descriptive flexfields are optional. You can choose to configure and expose segments for the descriptive flexfield defined and registered in your database, or not.

A descriptive flexfield provides a set amount of segments for an entity. The segments of a descriptive flexfield are made available to end users as individual fields in the application user interface.

#### Context

A descriptive flexfield can have only one context segment to provide context sensitivity.

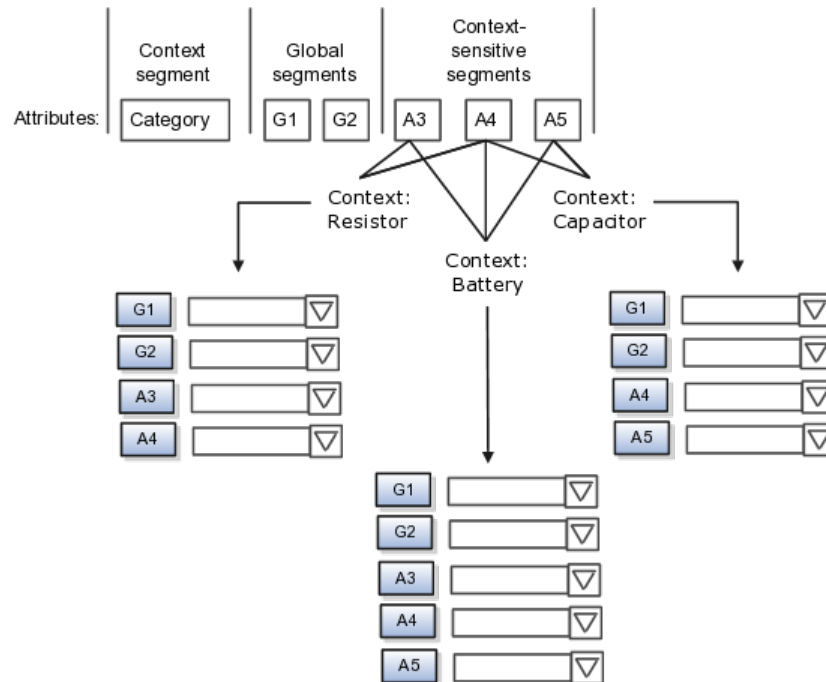
The same underlying column can be used by different segments in different contexts. For example, you can define a Dimensions context that uses the ATTRIBUTE1 column for height, the ATTRIBUTE2 column for width, and the ATTRIBUTE3 column for depth. You can also define a Measurements context that uses the same columns for other attributes: the ATTRIBUTE1 column for weight, the ATTRIBUTE2 column for volume, and the ATTRIBUTE3 column for density.

#### Segments and Contexts

Descriptive flexfield segments are of the following types.

Segment Type	Runtime Behavior
Global segment	Always available
Context segment	Determines which context-sensitive segments are displayed
Context-sensitive segment	Displayed depending on the value of the context segment

In the figure, a descriptive flexfield has one context segment called Category for which there are three values: Resistor, Battery, and Capacitor. In addition, the descriptive flexfield consists of two global segments that appear in each of the contexts, and three context-sensitive segments that only appear in the context in which they are configured.



Application development determines the number of segments available for configuring. During implementation you determine which attributes to add using the available segments, and the context values and the combination of attributes in each context. A segment can be used for different attributes, such as Height in Context1 and Color in Context2. Each segment of a descriptive flexfield that you make available to end users is exposed in the user interface as an individual field.

### Value Sets

For each global and context-sensitive segment, you configure the values allowed for the segment and how the values that end users enter are validated, including interdependent validation among the segments.

## Managing Descriptive Flexfields: Points to Consider

Configuring descriptive flexfields involves managing the available flexfields registered with your Oracle Fusion Applications database and configuring their flexfield-level properties, defining and managing descriptive flexfield contexts, and configuring global and context-sensitive segments.

Every descriptive flexfield is registered to include a context segment, which you may choose to use or not.

### Segments

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order. You cannot enter a number for one segment that is already in use for a different segment.

Value sets are optional for context segments. The value set that you specify for a context segment consists of a set of context codes, each of which corresponds to a context that is appropriate for the descriptive flexfield. If you do not specify a value set for a context segment, the valid values for that context segment are derived from the context codes. The definition of each context segment specifies the set of context-sensitive segments that can be presented when that context code is selected by the end user.

For reasons of data integrity, you cannot delete an existing context. Instead, you can disable the associated context value in its own value set by setting its end date to a date in the past.

You can configure the individual global segments and context-sensitive segments in a descriptive flexfield. These segment types are differentiated by their usage, but they are configured on application pages that use most of the same properties.

## **Usages**

Descriptive flexfield usages allow for the same definition to be applied to multiple entities. Descriptive flexfield tables define the placeholder entity where the flexfield segment values are stored once you have configured the descriptive flexfield.

## **Parameters**

Parameters are public arguments to a descriptive flexfield. Parameters provide outside values in descriptive flexfield validation. Parameters can be referenced by the logic that derives the default segment value and in table-validated VALUE set WHERE clauses.

## **Delimiters**

A segment delimiter or separator visually separates segment values when the flexfield is displayed as a string of concatenated segments.

# **Manage Extensible Flexfields**

## **Extensible Flexfields: Explained**

Extensible flexfields are like descriptive flexfields, with some additional features.

- You can add as many context-sensitive segments to the flexfield as you need. You are not dependent on the number of segments predefined and registered for the flexfield.
- You can configure a one-to-many relationship between the entity and its extended attribute rows.
  - A row of data can have multiple contexts associated with it.
  - A row of data can have multiple occurrences of the same context.

- You can configure contexts in groups so the attributes in the context always appear together in the user interface.
- You can use existing hierarchical categories so that entities inherit the contexts that are configured for their parents. Contexts are reusable throughout categories.
- You can specify view and edit privileges for the extensible flexfield segments to control who sees the attributes and who can change the attribute's values.

When you configure a context for multiple rows per entity, the segments are displayed as a table.

Unlike descriptive flexfields, the extension columns corresponding to extensible flexfields segments are part of extension tables, separate from the base application table. Unlike descriptive flexfield contexts, the set of attributes in an extensible flexfield context remains constant and does not differ by context value.

An extensible flexfield describes an application entity, with the runtime ability to expand the database that implementation consultants can use to define the data structure that appears in the application.

Extensible flexfields support one-to-many relationships between the entity and the extended attribute rows.

## Usages

As with descriptive flexfields, you can define multiple usages for an extensible flexfield, which enables several application tables to share the same flexfield.

For example, a flexfield for shipping options can be used by both a Supplier table and a Buyer table. In addition, you can associate a context with one, some, or all of the flexfield's usages. Thus, with the shipping information example, you can associate a warehouse context with the Supplier usage, a delivery location context with the Buyer usage, and a ship-via context with all usages.

## Categories

Extensible flexfields support multiple contexts, and the contexts can be grouped into categories. Every extensible flexfield has at least one category, or root category, and some extensible flexfields support a hierarchy of categories, where a given category can inherit contexts from its parent categories.

You can define categories for extensible flexfields, and you can associate any combination of contexts with a given category.

For example, the Electronics and Computers category hierarchy might include a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on. The Home Entertainment product might have contexts that specify voltage, dimensions, inputs and outputs. Contexts are reusable within a given extensible flexfield. For example, the dimensions context could be assigned to any category that needs to include dimensional information.

## Pages

Extensible flexfields allow you to combine contexts into groups known as pages, which serve to connect the contexts so they will always be presented together in the application user interface.

Each application page corresponds to one extensible flexfield category, with a separate region of the page for each associated context.

## Managing Extensible Flexfields: Points to Consider

Configuring extensible flexfields involves managing the available flexfields registered with your application database and configuring their flexfield-level properties, defining contexts, categories, and pages, and configuring the segments for each extensible flexfield.

### Contexts

A context can be defined as single row or multi row. Single row contexts are the same as descriptive flexfields contexts. A single row context has only one set of context-sensitive segments. A multi-row context enables you to associate multiple sets of values with the same object instance.

For example, for a BOOK table, you could create a multi-row context named chapters that contains a chapter segment and a number of pages segment. Multiple chapters can then be associated with each book in the BOOK table.

Set the context to translatable so free-form text entered by end users is stored in the language of the user's locale, and different translations of that text can be stored in other languages. Segments in the translated contexts should utilize format-only value sets for storing free-form, user-entered text.

### Categories

A category is a grouping of related data items that can be considered to belong together. You can associate any combination of contexts with a given category.

A category hierarchy logically organizes a set of categories.

For example, the Electronics and Computers category hierarchy might include a Computer category and a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on.

A category can be a child or sibling of an existing category. The hierarchy can be as simple or as complex as desired, with any combination of zero or more sibling categories and zero or more child categories. If no category is defined, the data items are grouped under a single predefined default category.

Each category has associated contexts that store relevant information about a data item in that category. For example, a Home Entertainment product has contexts that specify Voltage, Dimensions, Inputs and Outputs. Contexts are reusable within a given extensible flexfield; the Dimensions context could be assigned to any category that needs to include dimensional information.

If a hierarchy includes child categories, each child category inherits the contexts from its parent category; for example, the Home Entertainment category inherits Voltage and Dimensions from the Electronics and Computers category.

Each extensible flexfield is associated with a particular category hierarchy. You can think of category hierarchies as the defining framework for extensible flexfields and their contexts. A category hierarchy specifies which contexts are valid for each category.

An extensible flexfield can include multiple contexts which you define to support a given category. These contexts can be suitable for a variety of different purposes, but within a particular category, some contexts might be considered to be related to, or dependent on, each other. You can combine these contexts into groups known as pages, which serve to connect the contexts so they will always be presented together in the application user interface.

For example, the Home Entertainment category might have an Electrical Specifications page that contains the Voltage, Inputs and Outputs contexts, and a Physical Specifications page that contains the Dimensions and Form Factor contexts.

## **Indexed Segments**

You can designate an extensible flexfield segment as indexed so that it is one of the selectively required attributes an end user can use in an attribute search. If you indicate in the Manage Extensible Flexfield UI page that a segment should be indexed, the column representing the segment must be added to the database index. This is commonly done by a database administrator (DBA).

When an extensible flexfield with indexed segments is deployed, search task flows are generated along with the other flexfield artifacts and specify the indexed attributes as selectively required. In the deployed extensible flexfield's search task flow, an end user must specify at least one of the indexed attributes in the search criteria. This prevents non-selective searches which could cause performance issues.

For example, if you index the memory and processor attributes and ensure that the corresponding columns in the database are indexed, an end user can search an item catalog for computers by entering processor or memory or both as a search criterion. No search is performed if an end user enters an attribute as search criteria that is not indexed.

## **Manage Key Flexfields**

### **Key Flexfields: Explained**

Key flexfields provide a means to capture a key such as a part number, a job code, or an account code. A key flexfield consists of one or more segments, where each segment can have a meaning.

For example, a part number 10-PEN-BLA-450 might correspond to a black pen from vendor #450 sold by division #10 (office supplies). Behind the scenes, the application uses a unique number, 13452, for this part, but the end user always see the 10-PEN-BLA-450 part number.



The following aspects are important to understanding key flexfields.

- Architecture
- Segments and segment labels
- Structures
- Segment and structure instances
- Combinations
- Dynamic combination creation
- Security

Key flexfields are not optional. You must configure key flexfields to ensure that your applications operate correctly. You configure and maintain key flexfield definitions with the Manage Key Flexfields task.

## **Architecture**

When you configure a key flexfield, you define metadata about the key flexfield such as how many segments are in a structure, how many structures the flexfield uses, what value sets each segment uses, and so on. This is flexfield metadata stored in flexfield metadata tables.

Based on the flexfield metadata, actual part numbers are captured at runtime as a combination of segment values and stored in a combinations table. A combinations table contains all the segment columns for a flexfield, plus a unique ID column and a structure instance number column that differentiates multiple arrangements of the segment columns.

For example, a part number that can be comprised of multiple segments can be represented by a key flexfield. A part number key flexfield has a corresponding combinations table, where the flexfield stores a list of the complete codes, with one column for each segment of the code, together with the corresponding unique ID and structure instance number for the code. When users define a new part number or maintain existing part numbers in the parts catalog, they directly maintain rows in the combination table.

The foreign key table contains a different business entity than the combinations table. For example, the business entity in the foreign key table is order lines or invoice lines that contain foreign key references to parts for ordering and so on. Any number of foreign key tables can reference a particular entity represented by a key flexfield.

## **Segments and Segment Labels**

A key flexfield consists of segments. Segments consist of a prompt, a short prompt, display width, a number that determines where in the sequence of a key flexfield structure the segment exists, the range type and the column name of the attribute being captured by the segment, a default value set and a label for the segment. A segment label identifies a particular segment of a key flexfield. Segment labels are defined and made available by applications development.

Applications identify a particular segment for some purpose such as security or computations. Segment name or segment order cannot reliably identify a segment because key flexfield segments can be configured to appear in any order with any prompts. A segment label functions as a tag for a segment.

For example, Oracle Fusion General Ledger needs to identify which segment in the Accounting Flexfield contains balancing information and which segment contains natural account information. General Ledger uses a segment label to determine which segment you are using for natural account information. When you define your Accounting Flexfield, you must specify which segment label apply to which segments.

Some labels must be unique, and cannot be applied to more than one segment in each structure. Other labels are required, and must be applied to at least one segment in each structure.

A segment label orients an end user's search of segments, such as the Cost Center label for all segments across key flexfields that capture a value for cost center.

## **Structures**

A key flexfield structure definition includes the number of segments and their order.

In some applications, different users need to see different segment structures for the same flexfield. A key flexfield can have multiple structures if registered to support more than one structure.

The flexfield can display different fields for different end users based on a data condition in your application data, such as the value of another field entered by the end user or the user's role. For example, the correctly formatted local postal address for customer service inquiries differs based on locale. A postal address key flexfield could display different segments and prompts for different end users based on a location condition in your application data, such as the user's role or a value entered by the user.

Each structure can have one or more segments. Thus a segment is a child of a structure. If you want to store a particular segment, such as Cost Center, in two different structures, you must define the segment separately in each structures.

Each structure may have one or more structure instances. Each instance of a structure shares the same number and order of segments, but differs in the allowable values or value sets that validate the segments.

## **Structure and Segment Instances**

You can define multiple configurations of a key flexfield structure. These structure instances have the same segment structure, in the same sequence order. They differ primarily in how each segment is validated. You define a structure instance for each key flexfield and each key flexfield structure instance.

The segments in a key flexfield structure instance are segment instances. A segment instance is a segment with a specific value set assigned to it.

If a key flexfield has been registered with a tree structure, you can specify a tree code for a segment instance, where the tree code defines a hierarchical relationship between the segment values.

## Combinations

A combination is a complete code, or combination of segment values that makes up the code, that uniquely identifies an object.

For example, each part number is a single combination, such as PAD-YEL-11x14 or 01-COM-876-7BG-LTN. In these combinations, the hyphen is the segment separator. If you had ten parts you would define ten combinations. A valid combination is simply an existing or new combination that can currently be used because it is not out of date or disabled, and does not violate cross-validation or security rules. A combination has different segments depending on the flexfield structure being used for that combination. Any combination is associated with only one particular flexfield structure.

Many Oracle Fusion Applications products refer to a key flexfield combination by using the name of the entity or the key flexfield itself. For example, Oracle Fusion Assets uses the asset key flexfield and refers to one of its combinations as an asset key or asset key flexfield. In another example, other Oracle Fusion Applications products including Oracle Fusion General Ledger (GL) refer to combinations of the accounting flexfield as account or GL account.

Each key flexfield has one corresponding table, known as the combinations table, where the flexfield stores a list of the complete codes, with one column for each segment of the code, together with the corresponding unique ID number (a code combination ID number or CCID) for that code. Then, other tables in the application have a column that stores just the unique ID for the code. For example, you may have a part number code, such as PAD-YEL-11x14. The Parts combinations table stores that code along with its ID, 57494. If your application allows you to take orders for parts, you might then have an Orders table that stores orders for parts. That Orders table would contain a single column that contains the part ID, 57494, instead of several columns for the complete code PAD-YEL-11x14.

Typically one combinations page maintains the key flexfield, where the key flexfield is the representation of an entity in your application. The combinations page is where you maintain individual combinations, such as part numbers.

### Dynamic Combination Creation

Dynamic combination creation is the insertion of a new valid combination into a combinations table from a page other than the combinations page.

Dynamic combination creation may be enabled at the following levels.

Level Of Dynamic Combination Creation	Controlled By:
Flexfield	Application development
Each usage or reference to the key flexfield	Application development
Structure instance	Administrators and implementation consultants
Other	Administrators and implementation consultants

If your key flexfield or certain usages or references of the key flexfield do not permit dynamic combination creation, you may control whether dynamic

combination creation is enabled for each structure instance. If enabled, a user can enter a new combination of segment values using the flexfield window from a foreign key page. For example, when entering a transaction, a GL user can enter a new expense account code combination for an account that does not yet exist. Your application creates the new account by inserting the new combination into the combinations table behind the scenes. Assuming that the new combination satisfies any existing cross-validation rules, the flexfield inserts the new combination into the combinations table, even though the combinations table is not the underlying table for the foreign key page.

## Managing Key Flexfields: Points to Consider

Consider the plans for a key flexfield, security, and resulting runtime pages when configuring key flexfields.

### Planning

Plan structures carefully and allow for future needs.

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### Caution

Do not change the number, order, and maximum length of segments once you have acquired flexfield data.

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### Structure Delimiters

A delimiter separates the segments when they appear to end users. The delimiter value of a structure specifies the character used to visually separate segment values when the key flexfield is displayed as a string of concatenated segments in the UI.

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### Tip

Choose the delimiter value of your key flexfield carefully so that it does not conflict with the flexfield data. For example, if your data frequently contains periods, such as in monetary or numeric values, do not use a period as your segment separator. Any character you expect to appear frequently in your segment values or descriptions is not a good choice for the delimiter.

---

If you change the configuration of a key flexfield, such as the delimiter, the change affects the previously stored key flexfields with that structure.

### Security

Oracle Fusion data security enforces value set security.

Within key flexfields, value set security applies to the selection of the individual segment values in the segment list of values. When selecting a key flexfield segment value from the combination table, data security allows display of only the combinations whose segment values you have access to. Applications development controls whether or not value set security rules propagate to the foreign key table. By default they do.

## Runtime Pages

Application development determines the user interface (UI) pages used to render flexfields. The types of key flexfield UI pages are as follows.

- Combinations pages where underlying entity objects use the combinations table itself
- Foreign key pages where the underlying entity objects contain a foreign key reference to the combinations table
- Partial usage page where some or all of the key flexfield's segment columns are in a product table

The same key flexfield can be used in different ways on different pages.

A page with a foreign key reference has a base table or view that contains a foreign key reference to a combinations table with the actual flexfield segment columns. This allows manipulating rows containing code combination IDs (CCID).

A page with partial usage of a key flexfield presents segments that are defined on a product's transactional table in addition to being defined on a combinations table. In the case of a partial usage page, it is possible that only part of the configuration is visible. This allows the key flexfield to behave more like a descriptive flexfield.

A code combination maintenance page or combinations page presents the combinations table. This allows directly creating and maintaining code combinations. The combinations table contains all key flexfield segment columns and a unique ID column.

A typical application has one and only one combinations page. An application might not have a combinations page if it does not support maintenance by administrators.

A page containing a search region enables end users to select which attributes of the key flexfield view object to use as criteria to search for flexfield metadata.

For example, you can configure seven segments for the Account key flexfield. In a foreign key reference page, end users see the typical key flexfield picker with all seven segments where they can search for combinations. In a partial usage page using the same key flexfield, end users potentially could see only a single segment such as the Cost Center labeled segment, or they might see multiple segments but displayed as individual segments rather than as a picker for choosing combinations

For more information on key flexfield pages, see the Oracle Fusion Applications Developer's Guide.

## Key Flexfield Structures: Explained

A key flexfield structure arranges the segments of a key so you can reuse a single key flexfield in multiple combinations of the same or a subset of segments.

Multiple instances of a single structure can accommodate differences in the value sets assigned to the structure's segments.

The structure determines the following aspects of a key flexfield.

- The segments to include
- The order of the segments
- Segment labels on the included segments
- Properties for each segment applied to the instances of the segments in an instance of the structure

## Managing Key Flexfield Structures

All the segments defined for a key flexfield are available to be included in a key flexfield structure.

You can define as many segments as there are defined segment columns in your key flexfield combinations table.

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### Restriction

Be sure to add segments in the order that your key requires. Once deployed, the order cannot be changed.

---

Enable segments to indicate that they are in use. A flexfield does not display disabled segments in runtime.

---

### Tip

To protect the integrity of your data, disable a segment if you have already used it to enter data.

---

## Key Flexfield Structure Instances and Segment Instances: Explained

A key flexfield structure can have one or more alternate structure instances.

The instances of a key flexfield structure share the following aspects of the structure.

- The same set of segments
- The same arrangement of segments
- The same properties at the segment and structure levels

Differences among structure instances at the structure level include whether dynamic combination creation is allowed.

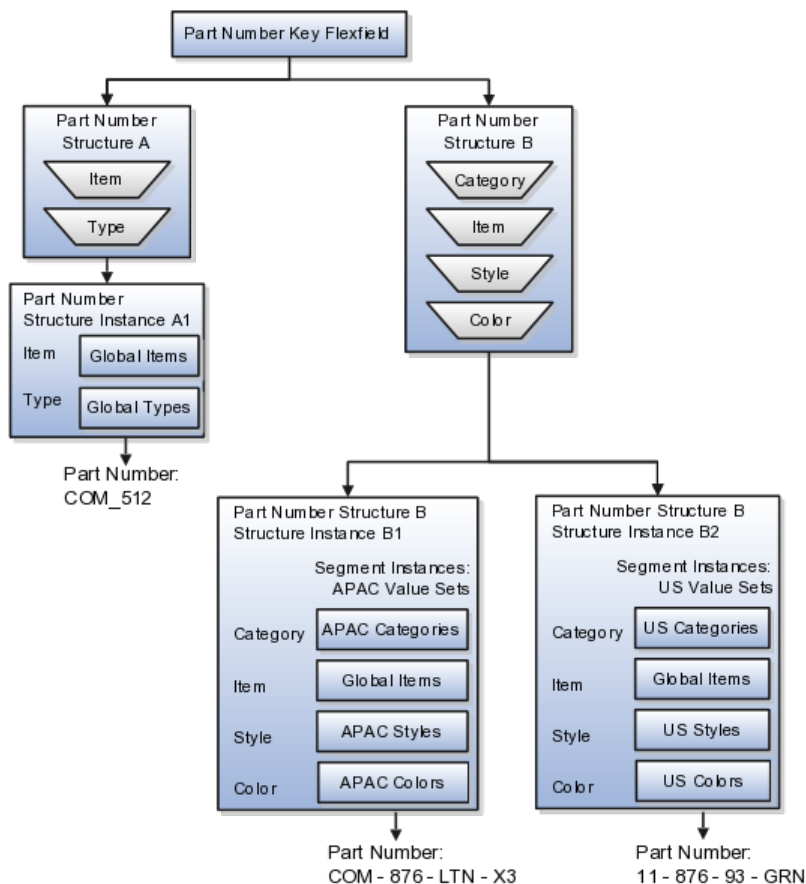
Differences among segment instances at the structure instance level include the following.

- Value set
- Default type and default value

- Tree code
- Whether the segment is any of the following
  - Required
  - Displayed
  - Enabled for business intelligence
  - Optional or required as a query criterion

For example, you could use one group of value sets for the US and another for France.

The figure shows two structures instances for a part number structure. The structures differ in the number of segments and the segment separators used. The structure instances of a structure share all properties that are defined for the structure, but can vary in the properties defined at the structure instance or segment instance level, such as the value set assigned to the segment instances.



### Query Required Segment Instances

You can designate a key flexfield segment instance as query required so that it is one of the selectively required attributes an end user can use in a key flexfield combination search. If you indicate in the Manage Key Flexfields UI page that a segment instance should be indexed, the column representing the segment

must be added to the database index. This is commonly done by a database administrator (DBA).

Following deployment, the combination picker of the key flexfield displays the query required attributes as selectively required. An end user must specify at least one of the query required attributes in the search criteria. This prevents non-selective searches that could cause performance issues.

For example, if you mark the cost center and account attributes as query required and ensure that the corresponding columns in the database are indexed, an end user can search for combinations by entering cost center or account or both as a search criterion. No search is performed if an end user does not enter at least one query required attribute as search criteria.

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### Tip

Index the Structure Instance Number column on your combinations table to improve performance.

---

## Dynamic Combinations

If a key flexfield supports dynamic combination creation, you can choose to enable this feature by selecting **Dynamic Combination Creation Allowed**. This will allow end users to enter values at runtime that produce new code combinations for the flexfield. If not enabled, new valid combinations can only be entered using the combinations table for the flexfield.

## Trees

If a tree code has been defined for the value set assigned to the segment instance, and you assign the tree code to the segment instance, tree hierarchy search operations are available on the segment values.

For a segment instance to be based on a tree, the following must be true.

- Application development registered the key flexfield with a tree structure.
- A tree code for that tree structure exists.
- The tree code that includes tree versions containing the values of the value set assigned to the segment instance.
- You assign the desired tree code directly to the segment instance.

Provided these conditions are satisfied, different segment instances that use the same value set can be assigned the same or different tree codes, meaning they use a different hierarchy definition over the same values.

## Key Flexfields: Example

A key flexfield can capture expense account information.

### Scenario

When entering details for each expense, the user specifies an account to which the expense is charged.



## Entering Expense Accounts

A user interface for entering expenses gives the user the option of selecting an expense account that identifies the cost center and other details needed for processing the expense.

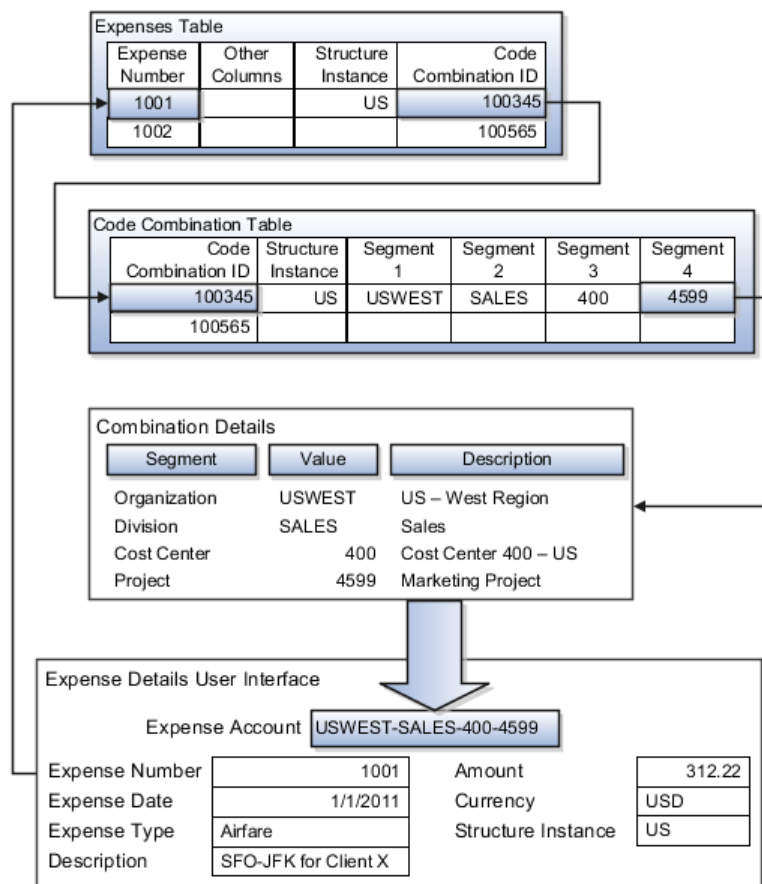
## Analysis

The expense account field is a foreign key reference to a code combination (EXPENSE\_LINES.EXPENSE\_ACCOUNT = ACCOUNTS.CCID).

## Code Combination Table for Entering Accounts and Employees

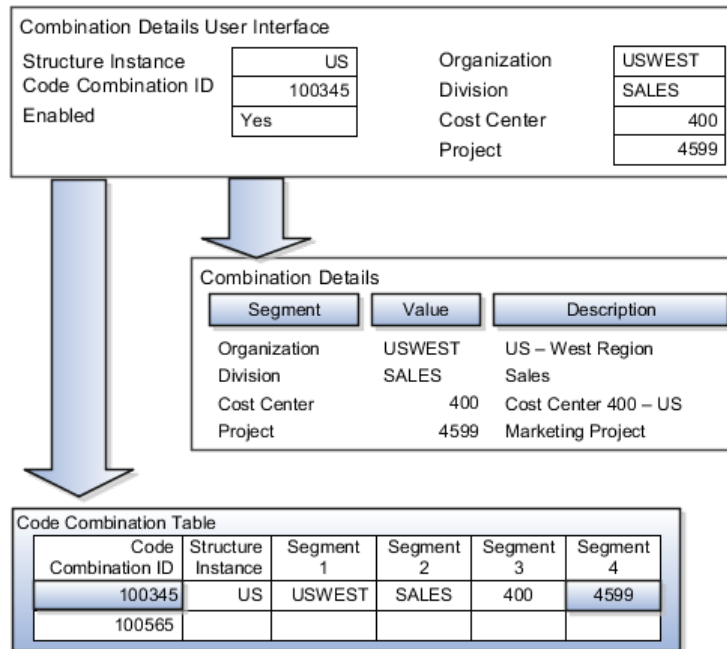
The code combination table supports entering account information, such as for expense accounts.

The figure shows the origin in the code combination table of the account specified by the user. The code combination ID record stores the information of the key flexfield segments used to assemble the expense account based on the key flexfield configuration.



The combinations page, which is the maintenance page for the key flexfield, is for managing rows in the combination table. In this example, managing the combinations means adding or editing account numbers that adhere to the key flexfield metadata rules.

The figure shows the code combination details for the example expense account reflected in the flexfield configuration and the code combination table.

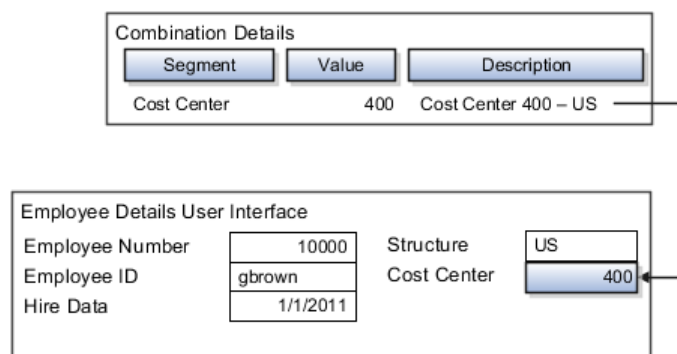


If dynamic combination creation is not enabled, then when entering an expense line, the user can only select an account that already exists in the ACCOUNTS (combinations) table. If they require an account that does not exist, they must consult with the appropriate application administrator who can add the account to the combinations table.

If dynamic combination creation is enabled, then when entering an expense line, the user can either select a pre-existing account, or type in a new account that created dynamically on the fly in the ACCOUNTS (combinations) table. Once the new combination is created, the same user can refer to it on the expense line.

When managing employee information, the user specifies the cost center that the employee belongs to. The cost center field corresponds to a single, labeled segment of the Account Key Flexfield and has metadata defined such as the allowable value set for that segment.

In this figure, instead of specifying a cost center ID reference to an account, only the Cost Center segment is used and the value is stored directly on the employee table.



## FAQs for Define Flexfields

### Why did my flexfield changes not appear in the runtime UI?

The ADF business components or artifacts of a flexfield, which are generated into an metadata services (MDS) repository when the flexfield is deployed, are cached within a user session. You must sign out and back in again to view flexfield definition changes reflected in the runtime application user interface page.

A flexfield's status relative to its deployment determines whether the flexfield segments as currently defined in the metadata are available to end users. The flexfield segments seen by end users in the runtime correspond to the flexfield definition that was last deployed successfully.

### What happens if a value set is security enabled?

Value set security is a feature that enables you to secure access to value set values based on the end user's role in the system.

As an example, suppose you have a value set of US state names. When this value set is used to validate a flexfield segment, and users can select a value for the segment, you can use value set security to restrict them to selecting only a certain state or subset of states based on their assigned roles in the system.

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

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

When you define or edit a flexfield segment, you specify a default value from the values provided by the value set assigned to that segment.

You can set the default value to be a parameter, which means the entity object attribute to which the parameter you choose is mapped will provide the initial default value for the segment.

You can set to be a constant, if appropriate to the data type of the value set assigned to the segment.

In addition to an initial default value, you can set a derivation value for updating the attribute's value every time the parameter value changes. The parameter you choose identifies the entity object source attribute. Any changes in the value of the source attribute during runtime 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.

## Define Attachments

### Attachments: Explained

Attachments are pieces of supplementary information that users can associate with specific business objects such as expense reports or purchase orders. Attachments can be URLs, desktop files, text, or in cases where available, repository folders. For any given business object, a user may be able to only view attachments, or also create, delete, or edit attachments, depending on security. For more information on an introduction to attachments, see the Oracle Fusion Applications Developer's Guide.

#### Repository

Attachments are stored in a content server, the Oracle Enterprise Content Management document repository. Users have no real interaction with the repository unless the repository mode is enabled for attachments on specific business objects. In which case, users can share attachments among objects, update attachments by checking them out of and back in to the repository, and perform other tasks. Access to attachment files is controlled by a digital signing mechanism. Depending on security, users might have direct access to the repository.

#### Security

Data security that applies to a specific business object also applies to attachments for that object, as determined by the attachment entity defined for the object. For example, if a user has no access to a specific expense report, then the same user cannot access attachments for the expense report. You can also use attachment categories to control access and actions on attachments, based on roles associated with the category. For more information on securing attachments, see the Oracle Fusion Applications Developer's Guide.

### Attachment Entities: Explained

An attachment entity is usually a database entity, for example a table or view, that represents a business object attachments can be associated with. Each attachment UI must be defined with a corresponding attachment entity, which not only identifies the business object to attach to, but also controls what users can do. Attachment entities are used only in the context of attachments and exist separately from the database entities that they are based on.

Edit and create attachment entities on the Manage Attachment Entities page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Attachment Entities task. Though you would generally use predefined attachment entities with attachment UIs, you might need to create new entities, for example when developing custom UIs.

#### Entity Names

An attachment entity name should match the name of the table or view that represents the business object to attach to. The name is also used in the

repository folder that is automatically created to store attachments for the entity. The attachment entity display name should be something that users know to represent the business object.

### **Database Resource**

The data security policies associated with the database resource defined for the attachment entity would apply to attachments for that entity. For example, based on the database resource for the expense reports attachment entity, the same policies apply to attachments for expense reports. The database resource value must match the value in the OBJ\_NAME column in the FND\_OBJECTS table for the business object that the entity represents.

### **Enabling Security**

Security based on the database resource associated with the attachment entity is always in effect. What you can enable or disable is security based on attachment categories. If any of the attachment categories associated with the attachment entity has data security defined, then that security applies to this entity only if enabled.

## **Attachment Entities and Attachment Categories: How They Work Together**

The association between attachment entities and categories determines which categories can be used for an entity. For example, categories associated with the expense report attachment entity are available to be implemented in attachment UIs for expense reports. You can define these associations when managing either entities or categories. Any association changes in either the Manage Attachment Entities or Manage Attachment Categories page are reflected on the other page. You can access either page by starting in the Setup and Maintenance Overview page and searching for attachment tasks.

### **Managing Entities**

You determine which attachment categories are relevant to a particular entity on the Manage Attachment Entities page, and each entity must have at least one category. Depending on configuration, any or all of the available categories for that entity are used. For example, you assign three categories to the expense reports attachment entity. For a particular expense report page with attachments functionality, you can customize the attachments component to specify which of the three categories are used. Based on your selection, the data security defined for each category, if any, is applied to attachments on that page if the attachment entity has category-based security enabled.

### **Managing Categories**

If you create an attachment category and need to assign it to multiple attachment entities, use the Manage Attachment Categories page. The association means the same as the association on the Manage Attachment Entities page.

# Attachments Troubleshooting: Explained

Attachments UIs for users to add and manage attachments are fully functional as is, and users usually would not encounter issues. If you customize attachments in any way, for example by creating additional attachment categories and implementing data security on them, then some issues might arise.

## Issue: Unable to View, Add, Update, or Delete Attachments

Users encounter issues when trying to view attachments or perform actions such as adding attachments.

- Users can no longer see specific attachments that they were previously able to see.
- Likewise, they can no longer update or delete attachments.
- Users get an error stating that they do not have permission to add attachments.

## Resolution

Use the Manage Attachment Entities page to ensure that attachment categories are associated to the relevant attachment entity. For example, if users can no longer see attachments for an expense report, then search for the expense report attachment entity and assign all necessary categories to it. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what categories to assign.

If data security is implemented on the categories for the attachment entity, then verify that the Enable Security check box is selected in the Manage Attachment Entities page for that entity. Make sure that users have a role with the privileges shown in the following table, to view, add, update, or delete attachments with a specific attachment category.

Action	Privilege
View	Read Application Attachment (FND_READ_APPLICATION_ATTACHMENT_DATA)
Add or Update	Update Application Attachment (FND_UPDATE_APPLICATION_ATTACHMENT_DATA)
Delete	Delete Application Attachment (FND_DELETE_APPLICATION_ATTACHMENT_DATA)

For example, if users have the Read Application Attachment privilege for all categories associated with the expense report attachment entity, except the Receipts attachment category, then they can view all expense report attachments except those created with the Receipts category. Likewise, if users do not have the Update Application Attachment privilege for any attachment categories tied to the expense report attachment entity, then they cannot create any attachments at all for expense reports.

For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

Finally, certain attachments UI for users have predefined restrictions on categories in place. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

### **Issue: Missing Attachment Category**

Users can see existing attachments, but the attachments no longer have an attachment category value.

### **Resolution**

When the attachment was added, at least one category existed for the corresponding attachment entity, as otherwise the attachment could not have been added. Since then, the entity was edited so that it no longer has any assigned categories, so the user cannot see the category associated with that attachment.

Use the Manage Attachment Entities page to reassign attachment categories to the relevant attachment entity. For example, if users can no longer see the Receipts attachment category for an attachment to an expense report, then search for the expense report attachment entity and assign to it the Receipts category. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what additional categories to assign.

Finally, certain attachments UI for users have predefined restrictions on categories in place. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

## **FAQs for Define Attachments**

### **What's an attachment category?**

An attachment category is used to classify and secure attachments. Each attachment user interface must be defined with at least one category for users to be able to add attachments. If there are multiple categories, users can view them and select one when adding attachments. For example, attachments for an expense report can be categorized as receipts, scanned invoice images, and so on.

You can also associate roles with categories to determine user access and actions for attachments, based on the categories assigned to the attachment entity. For example, security for expense report attachments can be based in part on the categories assigned to the expense report attachment entity. You can define multiple categories per module, and add and manage custom categories for your own purposes. For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

Use the Manage Attachment Categories page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Attachment Categories task.

## Set Activity Stream Options

### Activity Stream Options: Highlights

Activity Stream is a region on the Oracle Fusion Applications Welcome dashboard and other pages in various applications. Users track the activities and transactions of other users in this region. You can set options that affect the all Activity Stream regions for all users across your site. Individual users can still override your settings through Activity Stream preferences.

Activity stream settings are described in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Portal: Spaces. When you read content from that guide, note that:

- Your setup applies to all users, not just yourself or any individual user.
- You can disregard discussions about how to access the settings, because you access the Set Activity Stream Options page by starting in the Setup and Maintenance Overview page and searching for the Set Activity Stream Options task.

#### Setting Activity Stream Options

- Define the types of users to display activities about in the Activity Stream region, the types of activities to track, and other settings.

See: Setting Activity Stream Preferences

## Manage Menu Customizations

### Managing Menu Customizations: Highlights

You can customize the Navigator menu, which is the main menu of Oracle Fusion Applications and is always available in the global area. Use the Manage Menu Customizations page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Menu Customization task.

An overview of customizing the Navigator menu is provided in the Oracle Fusion Applications Extensibility Guide. Details of the values you enter to define menu items are provided in the Oracle Fusion Applications Developer's Guide.

#### Overview

- Navigator menu customization involves managing items, which are nodes in the menu that take the user to the desired destination, and groups, which are categories of items. The label is the menu item or group text displayed to users, and only rendered items and groups are visible to users. Items and groups that are not rendered are displayed in italics in



the menu customization pages. Refer to the Oracle Fusion Applications Extensibility Guide.

See: Customizing the Navigator Menu

## Menu Items

When you customize items in the Navigator menu, you determine if the item takes users to a specific page in Oracle Fusion Applications or to another application or Web site. The details of what you enter to define the menu item depend on the type of destination. If you duplicate a menu item, the new item appears below the selected source item.

- For menu items to an Oracle Fusion Applications page, do not enter anything in the Destination field, but specify the focus view ID of the target page, Web application, secured resource name, application stripe, and page parameters list. The secured resource name identifies the page definition file that is used to secure resource grants for the page, for example `oracle.apps.view.pageDefs.CaseList_Form_Attach_UIShellPagePageDef`. The application stripe is the partition for the application in the policy store, for example `crm`. If you enter both a secured resource name and an application stripe, then the menu item is rendered only if the logged-in user has permission to view that secured resource. If either value is missing, then the item is not secured. Refer to the Oracle Fusion Applications Developer's Guide.

See: Menu Attributes Added by Oracle Fusion Middleware Extensions for Applications

- For menu items to another application or Web site, enter only the full URL in the Destination field.

# Manage Applications Core Common Reference Objects: Manage Applications Core Messages

## Common Messages: Points to Consider

Common messages, which have message names that begin with `FND_CMN` and message numbers between 0 and 999, are used throughout Oracle Fusion Applications. Each common message can appear in multiple places in any product family. For example, the `FND_CMN_NEW_SRCH` message can be used for any search to indicate that no results were found. Common messages that are of type error or warning are part of the message dictionary.

### Editing Common Messages

Because a common message can be used in any application, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, make sure that the text would make sense to all users across Oracle Fusion Applications who might see it.

## Creating Common Messages

You can create custom common messages for use in multiple places within a single product. Do not begin the message name with FND\_CMN, but use another suitable convention. The message number should be within the range that is designated for the product.

## Manage Applications Core Common Reference Objects: Manage Applications Core Administrator Profile Values

### Creating and Editing Messages: Highlights

Each message in the message dictionary has many attributes and components, including message properties, text, and tokens, that you define when creating or editing the message.

Details about these messages are described in the Oracle Fusion Applications Developer's Guide.

#### Message Properties

- The message type identifies the type of information that the message contains.

See: Understanding Message Types

- The message name and number are identifiers for the message. There are specific message number ranges for predefined messages in each application, and you should not edit numbers assigned to predefined messages. When creating custom messages, use only message numbers within the 10,000,000 to 10,999,999 range.

See: About Message Names

See: About Message Numbers

- The translation notes for predefined messages might contain internal content that you can disregard.

See: About Translation Notes

- The message category, severity, and logging enabled option are related to the incident and logging process.

See: About Grouping Messages by Category and Severity

See: Understanding Incidents and Diagnostic Logs with Message Dictionary

#### Message Text and Tokens

- The message text comprises various components, some of which are displayed only to select users. To determine which component of the message text is displayed to a particular user, set the Message Mode

profile option (FND\_MESSAGE\_MODE) at the user level for that user. The message component short text is visible to all users and therefore, the profile option does not apply to this component. Also, the profile option applies only to messages in the message dictionary.

See: About Message Components

- Tokens are variables that represent values to be displayed in the message text.

See: About Tokens

## Profile Options and Related General Preferences: How They Work Together

Some Oracle Fusion Middleware Extensions for Applications profile options are related to general preferences in the global area.

### Preferences

The related general preferences are Default Application Language, Territory, Date Format, Time Format, Currency, and Time Zone. When the user changes any of these preferences, the stored values in LDAP are updated accordingly.

### Profile Options

The corresponding profile options are Default Language, Default Territory, Default Date Format, Default Time Format, Default Currency, and Default User Time Zone. No matter what you set for these profile options at any level, the preferences settings, or LDAP values, take precedence. The profile option value is used only if the LDAP value is not available. Updating the profile option value does not automatically update the value in LDAP or preferences.

## Document Sequences: Explained

In Oracle Fusion Applications, each business document or business event is uniquely identified by a document sequence number that you assign to it. However, the document sequencing feature must be turned on (enabled) on the business document or event to allow the assignment. For example, if document sequencing is enabled, you can assign a document sequence number to an invoice that gets generated in response to a purchase order. You can use document sequences as a proof to track successfully executed transactions as well as failed transactions. Additionally, a document sequence helps in generating an audit trail, which can be used to identify how a particular transaction passed through various applications.

Document sequencing can be managed automatically, manually, and gaplessly.

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### Note

Plan your document sequencing carefully before you use the options available in the application to apply sequence numbers. Avoid changes to the options

after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

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## **Automatic Sequencing**

Automatic document sequencing assigns a unique number to each document as it is generated, and this unique number is stored in the database. The numbering is sequential by date and time of creation. If you define a sequence to automatically number documents, you can provide an initial value to begin the sequence. In absence of a custom value, the default value 1 is used.

## **Manual Sequencing**

Manual sequencing requires you to assign a unique number to each document before it is generated. In manual sequencing, the numerical ordering and completeness of a transaction is not enforced. Users can skip or omit numbers when entering the sequence value. However, each time that a number is assigned, the application validates its uniqueness.

## **Gapless Sequencing**

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. As a result, the sequence is maintained for all the documents that are generated, and no sequence numbers are lost due to incomplete or failed document generation.

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## **Important**

Use this type of sequencing only if necessary because it may affect the performance of the system and slow down transaction processing.

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## **Sequential Numbering Enforced Profile Options**

The Sequential Numbering Enforced profile validates the documents being created and applies the relevant document sequence, based on the selected option. The following options are available:

- **Always Used:** Sequential numbering is enforced for all document categories. When this option is set, users cannot create a document if its document category is not assigned any active document sequence. The system displays an error.
- **Partially Used:** Sequential numbering is enforced for all document categories. However, if no sequence is available for the document, the system displays a warning. Users can either proceed without a document sequence or create and assign a document sequence before proceeding.
- **Not Used:** Sequential numbering is not enforced. In this mode, although the documents created do not require a document sequence to be assigned, the system checks for the uniqueness of the document number provided. The system does not display any warning or error.

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## **Restriction**

At the site level, the profile is by default set to Partially Used. Avoid changing this option as doing so may interfere with the validation logic and the data that was stored using the earlier option may not appear. However, you can change the option at the product or user level.

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## Common Applications Configuration: Define WebLogic Communication Services Configuration

### Click to Dial: Explained

Use Click to Dial to place a call to a contact from a hyperlink on the phone number or phone icon.

Here are a few topics that are important to know when using Click to Dial:

- Normal call flow
- Interaction Records and Notes
- Operational Notes

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#### Note

Click to Dial must be enabled to make calls using the various contact information pages and pop-up UIs. When enabled, phone numbers appear as hyperlinks. Interaction logging is available if that feature is enabled. If interaction logging is available, a note indicating that fact will be displayed in the UI. See Click to Dial: Top Tasks for more information about enabling these features.

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#### Normal Call Flow

Click to Dial uses a call-the-caller-then-call-the-callee procedure for completing a phone call. That format and the normal flow of this procedure are described below.

- **You initiate a call**

If you see a small orange square next to a contact or customer name, click the square to display further details, including phone numbers. To place a call, place your mouse over the phone number hyperlink and click.

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#### Note

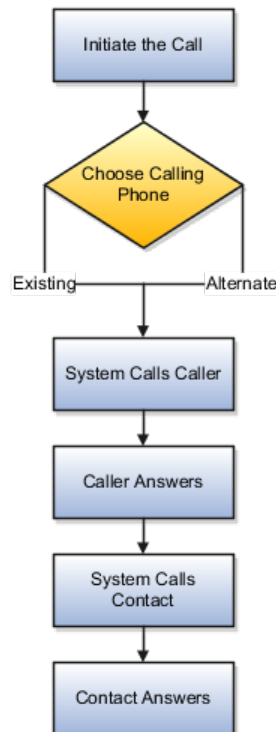
Click to Dial does not work on phone numbers that are marked with a Do Not Call icon.

- 
- **Select a Calling Phone**

Choose the calling phone number. Usually the calling phone is a number from your profile information. Alternately, if you need to use a phone not in your profile, you can specify a different number to originate your call.

- **Call Flow**

After you select the calling phone number, the system calls you back on that number, waits for you to answer, and then calls the person for whom the call is intended.



## **Interaction Records and Notes**

Click to Dial automatically creates an interaction record of the call, when that feature is enabled. The details window that provides the phone number may also show an Interaction icon that you can click to display a list of interaction records to edit, for example to provide a description of the call. The window may also provide a notes feature that you can use to record notes during the call.

### **Interaction Logging**

The interaction record is logged as soon as the call is either successfully set up or known to have failed.

The interaction log records the customer, call participants, a timestamp noting the start time of the call, the direction of the communication, in or outbound, and



the resolution code. The description is automatically updated with these three items:

- Call ID from OWLCS
- Your chosen phone number
- Contact phone number

The call resolution code is determined from OWLCS and recorded in the interaction:

OWLCS Call Status	Resolution Code in Interaction
CallConnected	CALL ANSWERED
CallAborted	FAILED
CallHangUp	FAILED
CalledPartyBusy	NOT AVAILABLE
CalledPartyNoAnswer	NOT AVAILABLE
CalledPartyNotReachable	NOT AVAILABLE
CallingPartyBusy	FAILED
CallingPartyNoAnswer	FAILED
CallingPartyNotReachable	FAILED

### Editing interactions

Once the call is established, if Interactions is available, you can use the Interactions icon on the UI to launch the interaction record list view. Select the current interaction record to edit it.

### Operational Notes

Because of the call-the-caller-then-call-the-callee format, there are some conditions that may occur due to several calling situations. Some of these conditions are described below:

- Why don't I hear a ring-back tone? As soon as you answer the system call-back, the system immediately dials the contact. You won't hear a ring-back tone as in a normal outbound phone call. However, you can tell that the call attempt is progressing because:
  - The phone indicates that the connection is active. If the call to the contact reaches a busy tone or the call attempt times out, the connection is dropped.
  - The dialing window stays on the screen while the call attempt is progressing. It disappears when the connection is either successfully established or fails.
- What if your phone is busy and the call-back goes directly to voice mail? Normally this would not happen because you would not initiate a new call when you are already busy on another call. However, this situation could occur due to a race condition, that is where another incoming call reaches your phone before the Click to Dial call-back. When this happens, two different scenarios could occur:

- If your phone is configured for busy-forward-all-to-voice-mail, the Click to Dial call would be forwarded to your voice mail, and the system thinks that the caller has answered the call and will proceed to call the contact. On answering, the contact hears your voice-mail greeting.
- If your phone is capable of presenting a second call to the user, as is supported by many office phones and mobile phones, then you can still answer the Click to Dial call and there is no issue.
- What if you wait too long to answer the call-back? In other words, you wait longer than the ring-no-answer-forward-to-voice-mail timer on the phone system and the call goes to voice mail. Normally, this would not happen because you are expecting the inbound call after you started the call, and would answer promptly. However, if for some reason you do not answer and allow the call to ring-no-answer-forward to voice mail, then the system would think that you have answered the call and will proceed to call the contact. On answering, the contact hears your voice-mail greeting.
- What if the contact does not answer in 30 seconds and the system abandons the call attempt? If the contact's voice mail is configured to answer after 30 seconds, you will not be able to leave a message.

## Click-to-Dial: Top Tasks

Click-to-Dial is a feature of the customer contact process. Phone communication to customers and employees is initiated with a click of the mouse, leveraging your customer contact information and the application context. The Click-to-Dial feature uses Oracle WebLogic Communication Services, OWLCS, to enable communications. Applications that provide the Click-to-Dial functionality do so primarily through contextual actions in the application.

Additionally, Click-to-Dial utilizes Oracle Fusion Interactions as an optional transaction logging feature that will track information about the call such as the customer, call participants, a timestamp noting the start time of the call, the direction of the communication, in or outbound, and the resolution code.

Click-to-Dial integrates with your telephony environment and must be manually enabled in your deployment. This topic highlights what is required to set up the Click-to-Dial feature and to implement logging of the calls made using the Click-to-Dial feature.

Terms used in setting up these communications

- PSTN: Public switched telephone network is the network of the world's public circuit-switched telephone networks.
- SIP: Session initiation protocol, an open signaling protocol standard that is used to set up phone calls
- TPCC: Third Party Call Control enables an application to control the telephony network to set up calls automatically.
- OWLCS: Oracle WebLogic Communication Services. Offers the TPCC service to Fusion applications and sets up the calls via SIP integration with the telephony network.

The set up task list Define WebLogic Communication Services Configuration delineates four tasks required for the correct configuration and implementation of Click-to-Dial. There is an optional task, separate from the set up task list, required for implementing Interaction logging.

Information about implementing Click-to-Dial can be found in the Oracle Fusion Applications Administrator's Guide. Detailed information about configuring and maintaining WebLogic Communication Services is found in the Oracle WebLogic Communication Services Administrator's Guide

### **Configure and Deploy WebLogic Server**

- Deploy WebLogic Communication Services: After the Oracle WebLogic communication server is deployed, this manual task activates the server.

See: Oracle WebLogic Communication Services Administrator's Guide

### **Integrate Communications Services**

- Integrate WebLogic Communication Services with Telephony Network: This manual task integrates communications within the telephony environment. OWLCS must be configured to interface with the specific characteristics of the telephony network.

See: Managing Oracle WebLogic Communication Services for Click-to-Dial Functionality

### **Specify the Domain and Address**

- Register a URL for the telephony gateway or soft switch for SIP domain: This task defines the Server protocol, defaulted to http, the external server host address and external server port address. The Associated Modules section is not required for setup. You can also perform this as a manual task using the Oracle Fusion Topology Manager to configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click-to-Dial to correctly form the SIP addresses required by WebLogic Communication Services. See the link to Configuring PSTN Gateway Address Using Topology Manager: Worked Example.

### **Enable Click-to-Dial**

- After configuring the server and defining the SIP domain, perform the Enable Click-to-Dial task. This task sets the value of the profile option Enable Click-to-Dial to 'Yes.'

### **Call Logging via Fusion Interactions**

- To initiate the Interaction based logging for Click-to-Dial, set the profile option Call Interaction Logging Enabled to 'YES.'

## **Configuring PSTN Gateway Address Using Topology Manager: Worked Example**

This example demonstrates how, during the implementation of the **Register URL for the telephony gateway or soft switch for SIP domain** task,

you must manually configure the PSTN gateway address by registering HzCTDPstnGatewayApp to a given environment using Oracle Fusion Topology Registration

These steps configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click to Dial to correctly form the SIP addresses required by WebLogic Communication Services.

For example: SIP:+1650-555-1212@pstn\_gateway.oracle.com;user=phone where pstn\_gateway.oracle.com is the SIP domain. The SIP domain can also be expressed in the format 10.1.1.1 (IP address).

## Configuring PSTN using the Topology Manager

1. Sign in to Oracle Fusion Applications as a user that has **application implementation consultant** and **WebLogic Services administration** roles
2. In Fusion Applications Setup and Maintenance, click Register Enterprise Applications from the regional area under **Topology Registration**
3. On the Register Enterprise Applications page, click the plus icon to add an enterprise application. An Add Enterprise Application popup appears
4. Enter the new application information: Click Search in the Enterprise Application list field. Enter **HzCTDPstnGatewayApp** in the name field and click Search. Click OK.
5. Enter the other fields in the Add Enterprise Application popup

Field	Value
Name	HzCTDPstnGatewayApp
Server Protocol	SIP  This field is ignored by click-to-dial. Oracle WebLogic Communication Service (OWLCS) always uses the SIP protocol.
External Server Host	10.143.167.91 (Used as an example)  A host name can be used instead of an IP address.
External Server Port	0 (Used as an example)  This field is ignored by click to dial.

6. Click Save and Close

## Common HCM Configuration: Define Workforce Records

### Define Availability

#### Worker Availability: How It Is Determined

The availability of a worker during a selected time period is automatically determined using:

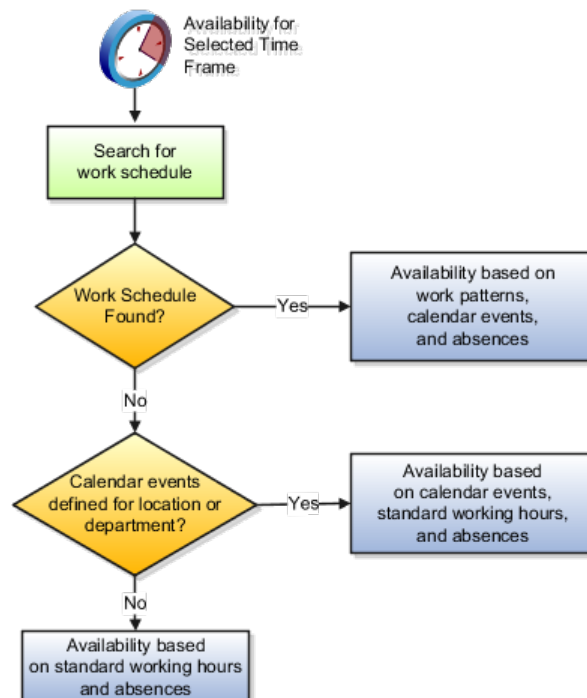
- Absence entries during that period
- The work schedule that the worker presently follows
- Calendar events

#### Settings That Affect Worker Availability

You specify which work schedules assigned to the worker's primary assignment or workforce structures are primary.

#### How Worker Availability Is Determined

The following figure shows how worker availability is determined.

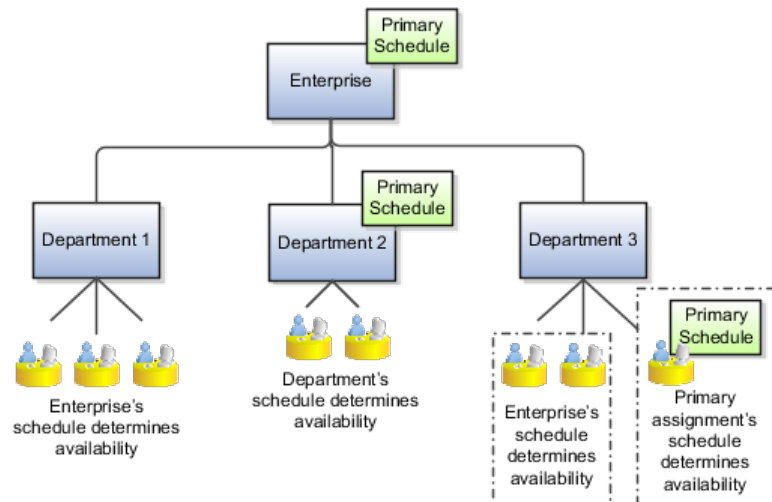


The application searches for primary work schedules that were assigned to these workforce structure levels in the following order:

1. Primary assignment of the worker
2. Position
3. Job
4. Department
5. Location
6. Legal Employer
7. Enterprise

To determine availability, work schedules that were assigned to lower workforce structure levels take precedence over those defined at higher levels.

For example, you assigned a primary schedule at the enterprise level. However, since workers belonging to a particular department in that enterprise follow different work timings, you assigned a different primary schedule to that department. The department's primary schedule determines worker availability because that schedule takes precedence over the one that was defined at the enterprise level. In the same example, if you assigned a primary schedule to a worker (primary assignment) belonging to the same department, then that schedule determines the worker's availability because a schedule assigned to the primary assignment takes precedence over the ones defined at the department level and the enterprise level. The following diagram illustrates this example:



The work patterns and exceptions that exist in the primary work schedule, and any absence entries during the selected time period, impact worker availability.

If no primary schedule was assigned to any of the workforce structures, then the worker availability is based on absences, calendar events, if created for the worker's location or department, and standard working hours defined for the worker's primary assignment. If no calendar events were created, then the application determines availability only on the basis of the standard working hours and absences.

## Calendar Event Coverage Type: Critical Choices

When you create a calendar event, you determine which set of workers the event must apply to. You must use one of these types of hierarchies to determine coverage:

- Organizational
- Geographic

You create the organizational or geographical hierarchies using the Manage Trees page. For the hierarchy to be visible when you create a calendar event, you must ensure that the hierarchy is active.

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#### Note

A calendar event, by default, applies to all workers belonging to the hierarchy nodes you included in the coverage. However, if you assign work schedules to workers, the calendar event only applies to them if you add the event as an exception in the work schedule.

---

### Using an Organization Hierarchy

Use an organizational hierarchy to apply a calendar event to your workers' assignments on the basis of the department that they belong to. For example, you want the Annual Sales Team Outing calendar event to apply to workers in the Sales department and its subordinate nodes, but not the Research department.

### Using a Geographic Hierarchy

Use a geographic hierarchy to apply a calendar event to your workers' assignments on the basis of the country that they belong to. For example, you may want to apply the Boxing Day calendar event to all workers in the UK, but not those in the US.

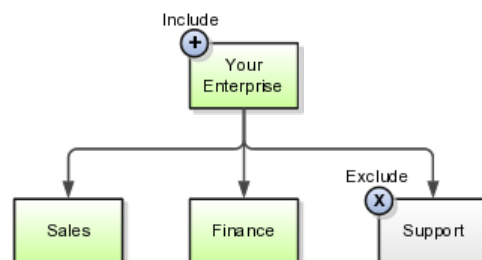
## Defining Calendar Event Coverage: Examples

When you use a geographic or organizational hierarchy for calendar event coverage, you can select which nodes in the hierarchy to include in or exclude from the coverage. You can also override the calendar event name or its category for a specific node in the hierarchy.

### Adding and Removing Coverage in a Hierarchy

You want to apply the New Phone System Training calendar event to all workers in your enterprise except those working in the Support department. When an event applies to most of a hierarchy, it's efficient to use the Include tool to include the whole hierarchy in the coverage and then use the Exclude tool to leave out the exceptions.

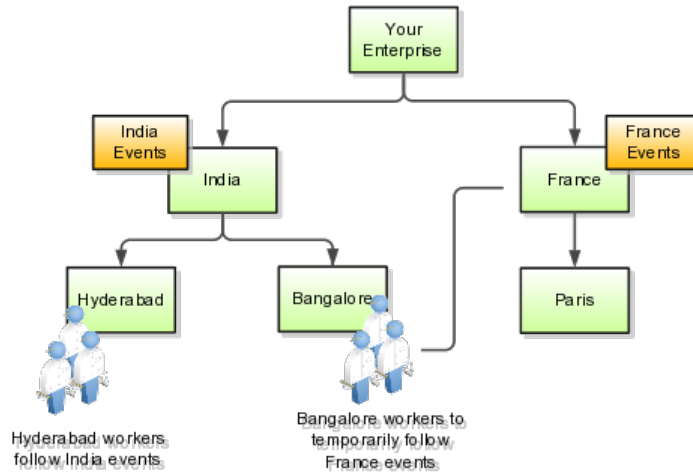
The following diagram shows how to include and exclude calendar event coverage in a sample organization hierarchy.



### Overriding Coverage for Specific Locations

You have set up public holidays and other calendar events for workers at your India location and France location using a geographic hierarchy. For six months, workers at your Bangalore location will work closely with their counterparts in Paris on a critical project. During this time, you want the Bangalore workers

to follow the events you set for France. On the Manage Locations page, edit the location information for Bangalore and set the geographic hierarchy to France. The following diagram shows a sample geographical hierarchy where employees of a particular location share calendar events of another country.



### Overriding Coverage for Specific Employees

Some workers from your Hyderabad location are closely working on a project with their counterparts at your France location for a year. For that duration, you want to change coverage for these employees so that they follow the calendar events you set up for the France location. For each worker, open the Manage Employment page, and set the Geographic Hierarchy to France.

### Overriding the Calendar Event Name in a Hierarchy

You have set up the May Day calendar event for all locations in your enterprise. However, you want the event to be referred to as Labour Day for your France location. On the Calendar Event page, select the France location node on your geographical hierarchy and use the Override tool to enter a new name for the event.

### Overriding the Calendar Event Category in a Hierarchy

You have associated the Good Friday calendar event with the Public Holiday event category and applied the coverage to all departments in your enterprise. However, you want to change the event category to a voluntary holiday instead of a public holiday for your Finance department. On your organization hierarchy, select the Finance node and use the Override tool to select a different category.

## Setting Up a Geographic Tree for Use with Calendar Events: Worked Example

This example demonstrates how to create a geographic tree so that calendar events can be associated to employees on the basis of their country.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which countries must be included in the geographic tree?	Your enterprise has employees working in the US, the UK, India, and Japan.



Between which dates must the geographic tree version be enabled?	January 1, 2011 to December 31, 2011.
--	---------------------------------------

The following is a summary of tasks that you must perform.

1. Launch the Manage Geography Trees task.
2. Create a geographic tree based on HCM Geographic Tree Structure, a predefined tree structure.
3. On the basis of the tree that you created, create a tree version and add country nodes to it.
4. Audit the tree version to identify and correct any validation errors that the audit detects. Activate and row-flatten the tree version.

### Launching the Manage Geography Trees Task

1. In the Functional Setup Manager (FSM), click the All Tasks tab.
2. In the Search region, enter Manage Geography Trees in the Name field.
3. Click Search.
4. In the search results, click Go to Task for the Manage Geography Trees task.

### Creating a Geographic Tree

1. On the Manage Trees and Tree Versions page, select **Create Tree** from the **Actions** menu.
2. On the Create Tree: Specify Definition page, complete the fields, as shown in this table.

Field	Value
Name	Enterprise Locations
Code	ENT_LOC
Tree Structure	HCM Geographic Hierarchy Tree Structure

3. Click **Next**.
4. Click **Submit**.

### Creating a Geographic Tree Version

1. On the Manage Trees and Tree Versions page, select the tree that you created.
2. From the **Actions** menu, select **Tree Version**.
3. On the Create Tree Version: Specify Definition page, complete the fields, as shown in this table.

Field	Value
Name	Enterprise Locations Version 1
Effective Start Date	January 1, 2011

Effective End Date	December 31, 2011
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4. Click **Next**.
5. On the Create Tree Version: Specify Nodes page, click **Add**.
6. On the Add Tree Node window, select Root in the Available Nodes region and move it to the Selected Nodes region. You select the root node because the topmost node in a geographic tree must be the root node.
7. Click **OK**.
8. On the Create Tree Version: Specify Nodes page, select the root node, and click **Add**.
9. On the Add Tree Node window, select Geographic Tree Territory Code Data Source in the **Data Source** field.
10. Select the following country nodes in the Available Nodes region:
  - GB United Kingdom
  - IN India
  - JP Japan
  - US United States
11. Move the country nodes to the Selected Nodes region.
12. Click **OK**.
13. Click **Submit**.

### Auditing and Activating the Geographic Tree Version

1. On the Manage Trees and Tree Versions page, select the tree version that you created.
2. Select **Audit** from the **Actions** menu.
3. On the Trees Audit Result page, click **Online Audit**.
4. Click **Done**.
5. On the Manage Trees and Tree Versions page, select the tree version that you created.
6. From the **Actions** menu, select **Set Status**, and then select **Active**.

### Row-Flattening the Tree Version

You row flatten a tree so that retrieval and display of the tree is faster.

1. Navigate to the Manage Trees and Tree Versions page.
2. From the **Actions** menu, select **Flatten**, and then select Row Flattening.
3. On the Row Flattening page, click **Online Flattening**.
4. Click **Done**.

For more information, see Case Study: How to Set Up a Geography Tree and Link to a Calendar Event on My Oracle Support at <https://support.oracle.com>.

## Creating and Assigning a Work Schedule: Worked Example

This example demonstrates how to create and assign a work schedule, incorporating shifts, patterns, and calendar events. The work schedule is for a support department in India, working in two shifts, and eligible for all public holidays.

The following table summarizes key decisions in this scenario:

Decisions to Consider	In This Example
Which calendar events must be included in the work schedule?	All public holidays
Which geographical location must the calendar events apply to?	India
What shifts must workers follow?	Day shift (9 a.m. to 5 p.m.). Night shift (5 p.m. to 1 a.m.).
What is the work pattern that workers must follow?	Day shift from Monday to Wednesday. Night shift on Thursday and Friday. Weekly holiday on Saturday and Sunday.
When must the work schedule start and end?	Starts on 1 January, 2011. Ends on 31 December, 2011.
Which shift must workers work first when the work schedule starts?	Day shift
What eligibility criteria must you associate the work schedule with so that line managers can easily find the schedule to assign to workers?	All employees who belong to the support department
Which department must this schedule be assigned to?	Support department
What exceptions must be made to the work schedule of Vijay Singh who works in the same department?	Vijay Singh is scheduled to attend the Advanced Communication Skills training course on 8 February, 2011 during which time, the work schedule must indicate that he is unavailable.

Create calendar events within the Public Holiday category. Create two shifts (day and night), then create a weekly work pattern that uses these shifts. Create a work schedule using this work pattern, and select the Public Holiday calendar event category as an exception. Then assign this work schedule to the support department. Assign the same schedule to Vijay Singh and add the training course as an exception and indicate that the worker is unavailable during the course.

### Prerequisites

1. On the Manage Trees page, ensure that the geographic hierarchy that you created for your enterprise contains a country node for India.
2. Create an eligibility profile Support\_Workers for all workers in your Support department.

### Creating Calendar Events

1. On the Manage Calendar Events page, click **Create**.

2. On the Create Calendar Event page, complete the fields, as shown in this table:

Field	Value
Name	Enter the name of the public holiday.
Category	Public Holiday
Start Date	Enter the date when the public holiday starts.
End Date	Enter the date when the public holiday ends.
Short Code	Enter a code to identify the public holiday.
Hierarchy Type	Geographic
Hierarchy	Select the geographic hierarchy that you created for your enterprise.

3. In the Coverage region that displays the geographic hierarchy you selected, select the India node, and click **Include**.
4. Click **Submit**.
5. If you want to add another calendar event, repeat steps 2 through 5.

## Creating Shifts

1. On the Manage Work Shifts page, click **Create Time Shift** from the **Actions** menu.
2. In the Create Time Shift window, complete the fields for each shift, as shown in this table:

Field	Day Shift	Night Shift
Name	Day Shift	Night Shift
Start Time	0900 hrs	1700 hrs
Duration	8 hours	8 hours
Shift Detail Type	None	None

3. Click **Save and Close**.

## Creating a Workday Pattern

1. On the Manage Work Workday Patterns page, click **Create Time Workday Pattern** from the **Actions** menu.
2. In the Create Workday Pattern window, complete the fields, as shown in this table:

Field	Value
Name	Weekly Work Pattern
Length in Days	7

3. In the Workday Pattern Details region, click **Add Row** from the **Actions** menu.
4. In the Workday Pattern Details table, complete the fields, as shown in this table:

Field	Day Shift	Night Shift
Start Day	1 (Monday)	4 (Thursday)
End Day	3 (Wednesday)	5 (Friday)

5. Click **Save and Close**.

## Creating a Work Schedule

1. Navigate to the Manage Work Schedules page.
2. On the Manage Work Schedules page, click **Create**.
3. On the Create Work Schedule page, complete the fields, as shown in this table:

Field	Value
Name	Work Schedule for Support
Category	Work
Type	Time
Effective From Date	01 January, 2011
Effective To Date	31 December, 2011
Pattern	Weekly Work Pattern
Exceptions	Public Holiday event category
Eligibility Profile	Support_Workers

4. Click **Submit**.

## Assigning the Work Schedule to a Department

1. Navigate to the Manage Work Schedule Assignment Administration page.
2. Search for the Work Schedule for Support schedule.
3. Click the schedule to open it on the Edit Work Schedule Assignment page.
4. On the Resource Assignments region, click **Add Row** from the **Actions** menu.
5. Complete the fields, as shown in this table:

Field	Value
Resource Type	Department
Name	Support department
Start Date	01 January, 2011
End Date	31 December, 2011

Starting Shift	Day Shift
Primary	Yes

- Click **Submit**.

## Modifying the Work Schedule of a Worker

- On the Person Search page, search for Vijay Singh, and select that record.
- From the **Actions** menu, click Manage Work Schedule Assignment.
- On the Manage Work Schedules page, click the **Add Row** icon on the tool bar.
- Complete the fields in the Schedules region, as shown in this table:

Field	Value
Name	Select Work Schedule for Support.  In this example, when you search for the schedule in the Search and Select window, select the <b>Filter Using Eligibility</b> checkbox to display all work schedules created for the Support department.
Start Date	01 January, 2011
End Date	31 December, 2011
Starting Shift	Day Shift
Primary	Yes

- In the Exceptions region, click the **Add Row** icon on the tool bar.
- Complete the fields, as shown in this table:

Field	Value
Type	Resource Exception
Name	Click <b>Create</b> in the choice list to create a resource exception called Advanced Communication Skills that starts on 8 February, 2011 and ends on the same day.
Availability	Off Period

- Click **Submit**.

## FAQs for Define Availability

### How do I create a calendar event category?

In addition to the predefined Public Holiday event category, you can create your own calendar event categories by adding values to the Calendar Event Category lookup type.

### **When do calendar events affect workers?**

When you include that event as an exception in a work schedule and assign it as a primary work schedule to the worker's assignment. However, if no work schedule exists for the worker's assignments, then the calendar events that cover the worker's location or department apply.

### **How do I change exceptions in work schedules for individual workers?**

When you assign the schedule to a worker using the Manage Work Schedule Assignment page, you can change the exceptions and their impact to that worker's availability. For example, if you added a calendar event as an exception that impacts all workers, but want a particular worker to remain available to handle critical customer queries, you can change the availability for that exception.

### **How can I associate calendar events with countries?**

On the Manage Trees page, you must create a geographic tree version using the predefined HCM Geographic Hierarchy tree structure and add country nodes. When you create a calendar event, you select that geographic tree version and select countries that you want the calendar event to apply to.

## **Define Person Record Values**

### **Person Types: Explained**

You use person types to identify different groups of people in your enterprise.

For example, for purposes of reporting, you may want to identify contractual workers in your enterprise with the Contingent Worker person type, and regular employees with the Employee person type. You can maintain information for a group of people on the basis of the person type. You can also secure access to information on the basis of the person type.

#### **System Person Types**

These are predefined person types that the application uses to identify a group of people. You cannot change, delete, or create additional system person types.

#### **User Person Types**

Each system person type contains a user person type that you can configure to your requirements. You can change, remove, or create additional user person types to suit your enterprise requirements. For example, if your enterprise refers to its employees as associates instead of employees, you change the Employee user person type to Associate. In another example, if you want to classify employees further as equity partners, non-equity partners, and associates, you add these user person types under the Employee system person type. There is no limit to the number of user person types that you can add to a system person type.

### **Person Names: Explained**

This topic describes name styles, name formats, and person-name languages.

## **Name Styles**

The structure of a person's name can vary among countries. For this reason, a predefined name style exists for many countries for capturing relevant components of a person's name. The name style determines:

- Which name components appear when you create a person record.  
For example, one country may display first name, last name, and title while another displays first name, middle name, and last name.
- The order in which the name components appear.
- Which name components are required and which are optional.  
For example, in one country you may be required to enter a title and in another the title may be optional.

When a country-specific name style does not exist, a universal name style (last name, first name, and title) is used.

When you create a person record you select a legal employer, which sets the legislative context for the record. For example, if the legal employer is a Canadian legal entity, the legislative context is Canada and the Canadian name style is used. A person's contacts have the same name style as the person for whom they are contacts.

## **Name Formats**

When a person's name is displayed to users, the format of the name can vary according to the context in which it appears. For example, in an ordered list of names last name may appear before first name, but in other contexts first name appears before last name. A name format is a template for arranging the components of a name, such as first name, last name, and title, in a specified order for a particular purpose. Four name formats are available: display name, list name, full name, and order name.

Name formats can vary among countries; therefore, both global and local versions of names formats can exist.

### **Global and Local Name Formats**

The profile option HR: Local or Global Name Format controls whether users see local names or global names by default.

Global names use one name format; therefore, they enable users in multinational enterprises to see person names presented consistently, regardless of their countries of origin.

Users who view or manage person records in a single country may prefer to see local names. For example, users who view or manage person records only in Japan may prefer to see Japanese rather than global formats of person names.

### **Person-Name Languages**

Each enterprise identifies a global-name language. Person names appear in this language by default. When you create a person record, you can enter a local



name in a different language from the global-name language. Names appear in this language for users whose HR: Local or Global Name Format profile option value matches the local-name language. For example, if the global-name language for the enterprise is American English and you set the local-name language in a person record to Japanese, users whose HR: Local or Global Name Format profile option is set to Japanese see the person's name in Japanese. All other users (those who are viewing global-format names or whose HR: Local or Global Name Format profile option is set to a value other than Japanese) see the person's name in American English.

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**Note**

If you enter no local name in a person record, the local name is the same as the global name by default.

---

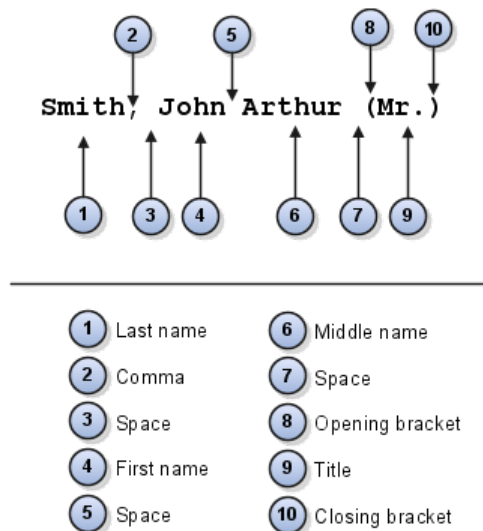
Users can set preferences to select the language in which they see the display-name versions of person names.

## Person Name Formats: Explained

A person name format type determines how a person's name appears across Oracle Fusion Applications.

Each person name format type contains a sequence of name components that represents different parts of a person's name, for example, first name, last name, and punctuation marks. You can change the sequence of, remove, or include additional name components according to your requirements.

The following figure illustrates name components along with punctuation marks that make up a name format.



### Predefined Name Format Types

Oracle Fusion HCM provides the following predefined format types that you can configure.

Format Type	Usage	Default Structure
Full Name	For names that appear in reports.	[Last Name], [First Name] [Middle Name] [Title]
Display Name	For names that appear singly, for example, on the Person Management page header.	[First Name] [Prefix] [Last Name]
List Name	For names that appear in lists	[Prefix] [Last Name], [First Name]
Order Name	For names that appear in name-ordered lists where the full name alone is not sufficient to sort the list.	[Last Name] [First Name]

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### Note

When you create or edit format types, to avoid creating blank person names, ensure that you include at least one name component that is never blank.

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### Local and Global Name Formats

A local format is suitable for users in a single legislation who prefer to see person names in a character set appropriate to their legislation.

A global format is suitable for users in a multinational enterprise who prefer to see person names in a single (typically, Western) character set, so that all names, regardless of origin, have the same representation.

Oracle Fusion HCM includes local and global formats for each format type. When you create a new format on the basis of an existing format type, you identify it as either local or global. For local format types, you must also select the legislation that the format type applies to.

## Person Lookups: Explained

This topic identifies common lookups that are person-related and have user or extensible customization levels. Review these lookups, and update them as appropriate to suit enterprise requirements.

### Person Information Lookups

Person information lookups are described in the following table.

Lookup Type	Description	Customization Level
PER_NATIONAL_IDENTIFIER_TY	Type of a person's national identifier, such as social security number, civil registration number, or national insurance number	Extensible
PERSON_TYPE_STATUS	Status of a user person type, such as active or inactive	User
EMAIL_TYPE	Type of a person's e-mail address, such as home e-mail or work e-mail	Extensible

ADDRESS_TYPE	Type of a person's address, such as home address or mailing address	Extensible
PHONE_TYPE	Type of a person's phone, such as home phone or mobile phone	Extensible
PER_CM_MTHD	Communication methods for a person, such as e-mail or instant messenger	Extensible
PER_CONTACT_TIMES	Times of day when a specified phone number can be used, such as evenings or weekends	Extensible
PER_ETHNICITY	Person's ethnicity, such as Hispanic, Asian, or American Indian	Extensible
PER_RELIGION	Person's religion, such as Christianity, Hinduism, or Islam	Extensible
PROFESSION	Person's profession reported on a visa or work permit, such as engineer, nurse, or teacher	Extensible
TITLE	Person's title, such as Miss, Doctor, or Professor, forming part of the person's name	Extensible
HONORS	Higher qualifications, such as CPA, PhD, or DDS, forming part of the person's name	Extensible
PER_HIGHEST_EDUCATION_LEV	Person's highest level of academic qualification, such as BSc, Diploma, or MA.	User
MILITARY_RANK	Person's military rank, such as private, sergeant, or corporal, forming part of the person's name	Extensible
BLOOD_TYPE	Person's blood group, such as A rhesus negative or B rhesus positive	User
CONTACT	Relationship between a person and the person's contact, such as partner, child, or brother	Extensible
MAR_STATUS	Person's marital status, such as single, married, or legally separated	Extensible

### Document Information Lookups

Document information lookups are described in the following table.

Lookup Type	Description	Customization Level
PER_DRIVERS_LICENSE_TYPE	Type of a person's driver's license, such as permanent or temporary	Extensible
PER_CITIZENSHIP_STATUS	Status of a person's citizenship, such as active or expired	Extensible
PER_PASSPORT_TYPE	Type of a person's passport, such as emergency or regular	Extensible

PER_VISA_PERMIT_TYPE	Type of a person's visa or work permit, such as temporary worker or residence permit	Extensible
PER_VISA_PERMIT_STATUS	Status of a person's visa or work permit, such as pending or active	Extensible

### Disability Information Lookups

Disability information lookups are described in the following table.

Lookup Type	Description	Customization Level
DISABILITY_CATEGORY	Type of a person's disability, such as hearing loss or visual impairment	User
DISABILITY_REASON	Causes of a person's disability, such as accident or illness	Extensible
DISABILITY_STATUS	Status of a person's disability registration, such as approved or pending	User

## Communicating Person and Assignment Changes to Consumer Applications: Explained

Some Oracle Fusion applications, such as Oracle Fusion Trading Community Model, need to be alerted when changes to person and assignment details occur so that they can synchronize their information with that held by Oracle Fusion Global Human Resources.

To share changes to person and assignment details with consumer applications, you run the process Synchronize Person Records. This process raises an HCM event (ChangedPersonDetails), for which consumer applications listen. On input to the process, you can specify start and end dates; the process raises events for changes that become current between those two dates. If you specify no date, the process runs for the system date (today's date), and events are raised for changes that become current on that date.

You are recommended to schedule Synchronize Person Records to run daily.

### Changes Notified to Consumer Applications

When you run Synchronize Person Records, the ChangedPersonDetails event is generated by changes to:

- Person
- Person name
- Person work e-mail address
- Person phones
- Person image

- Service dates
- Assignments (including changes to job, position, department, work location, work location address, manager, and worker type)

Changes to the names of a person's existing job, position, department, work location, or work location address do not cause the ChangedPersonDetails event to be generated.

## FAQs for Define Person Record Values

### What happens if I change the status of a user person type?

The status of a user person type determines whether it is available across Oracle Fusion HCM.

If you inactivate a user person type, there is no impact on worker assignments that are currently associated with that person type. However, starting from the date of inactivation, you can no longer select that person type to associate with worker assignments.

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#### Note

You cannot inactivate a default user person type; you must first select a different user person type as the default.

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### What's the purpose of the default user person type?

Each system person type contains a default user person type that the application uses to associate with person records for reporting and display purposes. When you hire a worker and specify assignment information, the application associates the default user person type with that worker assignment. However, if you select a different person type, then the application considers the selected person type as the default one for that worker.

### When does the application update stored names with a person name format?

When you run the Update Person Names process. When you update a name format, you run this process so that the application updates the stored names according to the rules of the updated format type. You can run the process for a specific name-format and legislation combination.

### How can I switch between local and global formats to display person names?

You use the HR: Local or Global Name Format profile option. If you select the global name format, then person names appear in the same format across all legislations. If you select a particular legislation, then person names appear in a format specific to that legislation. For example, if you set the profile option to Japan, then Japanese person names appear in the local name format that was created for Japan. However, person names that were stored using formats other than those of the Japanese legislation appear according to the global name format.

## Define Employment Record Values

### Assignment Statuses: How They are Set Up

Each assignment contains an assignment status. The assignment status contains an HR status, a payroll status, and optionally user statuses. The HR status and payroll status values are linked to the assignment status and are set automatically when the assignment status changes.

This table summarizes the values of the three statuses.

Assignment Status	HR Status	Payroll Status
Active - payroll eligible	Active	Process
Active - no payroll	Active	Do not process
Suspended - payroll eligible	Suspended	Process
Suspended - no payroll	Suspended	Do not process
Inactive - payroll eligible	Inactive	Process
Inactive - no payroll	Inactive	Do not process

#### Assignment Status

When you create or edit an assignment, you select an action that categorizes the change and determines what are the next steps. Some actions make an automatic change to the assignment status. For example, when you create an assignment, its status is set automatically to Active - payroll eligible. The same action sets the HR status to Active and the payroll status to Process. Otherwise, you must set the assignment status directly.

#### User Status

You can define one or more user names for each assignment status value. If multiple user statuses exist for a HR status, you must designate any one user status as the default status corresponding to the HR status. The default assignment status is attached to an assignment unless you specify a default user status. For example, when you create an assignment, its status is set automatically to the default assignment status corresponding to the HR status Active.

### Enforcing Grades at Assignment Level: Points to Consider

This topic describes the effects of the following employment-related profile options:

- PER\_ENFORCE\_VALID\_GRADES
- PER\_DEFAULT\_GRADE\_FROM\_JOB\_POSITION

## Enforce Valid Grades (PER\_ENFORCE\_VALID\_GRADES)

If you set this site-level profile option to Yes, then users can select a grade for an assignment or set of employment terms only from those grades that are valid for the job or position.

- If users select both a job and a position for the assignment or employment terms, then they can select grades that are valid for the position only.
- If valid grades are defined for neither the job nor the position, then users can select from all grades.

If you set this profile option to No, which is the default value, then users can select from all grades.

## Default the Grade from the Job or Position (PER\_DEFAULT\_GRADE\_FROM\_JOB\_POSITION)

If you set this site-level profile option to Yes, and there is only one valid grade for a job or position, then that grade is used by default in the assignment or employment terms. In addition, if an entry grade is defined for a position, then that grade is used by default when the user creates a new set of employment terms or a new assignment.

If you set this profile option to No, which is the default value, then users can select from all grades.

# Employment Lookups: Explained

This topic identifies common lookups that are employment-related and have user or extensible customization levels. Review these lookups, and update them as appropriate to suit enterprise requirements.

## Employment Contract Lookups

Employment contract lookups are described in the following table.

Lookup Type	Description	Customization Level
CONTRACT_TYPE	Type values, such as fixed-term, full-time, and seasonal	User

## Employment Terms and Assignment Lookups

Employment terms and assignment lookups are described in the following table.

Lookup Type	Description	Customization Level
BUDGET_MEASUREMENT_TYPE	Work measure values, such as headcount and FTE	Extensible
EMP_CAT	Assignment categories, such as full-time regular and part-time temporary	User

EMPLOYEE_CATG	Worker type values, such as white collar, blue collar, and civil servant	User
BARGAINING_UNIT_CODE	Codes that identify bargaining units, such as health professionals, steel workers, and public service workers	User
PER_SUPERVISOR_TYPE	Manager types, such as line manager, project manager, and technical manager	Extensible

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#### Note

If your enterprise uses matrix management (where a worker assignment has multiple managers of different types), then you need to review the predefined manager types in the PER\_SUPERVISOR\_TYPE lookup and add any missing types. You may also need to create job roles for managers other than line managers and ensure that they have appropriate access to the records of workers who report to them.

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### Terminations Lookups

Terminations lookups are described in the following table.

Lookup Type	Description	Customization Level
PER_PDS_REHIRE_REASON	Reasons, such as misconduct and poor performance, for not recommending rehire of a worker	User

### Areas of Responsibility Lookups

Areas of responsibility lookups are described in the following table.

Lookup Type	Description	Customization Level
PER_RESPONSIBILITY_TYPES	Worker responsibilities, such as benefits representative, union representative and fire warden	Extensible

## Define Documents

### Document Types, Categories, and Statuses: Explained

Document records enable persons to create and maintain documents such as medical certificates, licenses, and visas. Document categories (for example, absence) provide a way to group these documents into meaningful categories at a higher level. Document subcategories (for example, general or medical) provide further grouping of documents. Document types (for example, leave approval or medical report) provide a lower level categorization of documents. To supplement the predefined document types, categories, and subcategories, you can create your own to suit the requirements of your enterprise.



## Document Types

The type of documents you can access depends on your role. For example, line managers, but not HR managers, may be able to view workers' payslips. Using the document type security profile, you can restrict which users or roles can access particular documents. The document type also indicates if the document requires approval. If you want to track the expiry of the document record, define **Valid Till** as a required or relevant attribute in the document type and specify the expiration notification period. The Enterprise Scheduler Service (ESS) generates a report of expired documents and notifies persons based on the notification preferences specified in the document type.

## Document Categories

Use the `DOCUMENT_CATEGORY` lookup type to define new document categories and subcategories. Define document categories as values for the `DOCUMENT_CATEGORY` lookup type and document subcategories as extended lookup values for the selected category.

## Document Statuses

Approval statuses enable you to identify and track document records requiring approval. Define approval statuses as values for the lookup type `DOCUMENT_STATUS`.

Note that the application does not use the approval statuses to determine the document approval process. These statuses are for information purposes only.

## FAQs for Define Documents

### What's the purpose of creating a document record?

Create document records to store information about documents such as work permits, and visas, and upload electronic versions of the documents as attachments. Document records store necessary document details such as the period for which the document is valid. This information can then be used for reporting purposes. For example, HR specialists can see the reports of documents that are near expiration in their dashboard.

### Why are some approvers already appearing for the document record?

The document type you select determines whether the document record requires approval. The list of approvers is predefined for the document type, however, you can add additional approvers. You receive a notification once the document record is approved. Following approval, the document record is then accessible and available for use in reports and analytics, for example.

## Schedule Processes for Portrait Gallery

## Maintaining Person Keywords: Explained

Several attributes of person, employment, and profile records are used as person-search keywords. Keyword values are copied automatically from the originating

records to the PER\_KEYWORDS table, where they are indexed to improve search performance.

This topic explains:

- How person keywords are maintained
- Why you run the Update Person Search Keywords process
- How to schedule the Update Person Search Keywords process

### **How Person Keywords Are Maintained**

Whenever the value of a keyword attribute changes (for example, if a person acquires a language skill or a different phone number), an event is raised. In response, services run a process to update the relevant attributes for the person in the PER\_KEYWORDS table; therefore, most changes are made in PER\_KEYWORDS immediately and automatically.

When you create a new person record, keyword values for that person are copied automatically to the PER\_KEYWORDS table.

### **Why You Run the Update Person Search Keywords Process**

Although most changes to the PER\_KEYWORDS table are made automatically, you need to run the Update Person Search Keywords process regularly because the automatic process does not apply future-dated changes to the PER\_KEYWORDS table. Running the Update Person Search Keywords process also ensures that all changes are copied to the PER\_KEYWORDS table, despite any temporary failures of the automatic process.

### **How to Schedule the Update Person Search Keywords Process**

You can run the Update Person Search Keywords process manually or schedule it to run at regular intervals (for example, weekly at a specified time).

The likely volume and frequency of changes to person records in your enterprise will determine how often you run the Update Person Search Keywords process:

- If the volume and frequency are high, you need to schedule the process to run frequently.
- If the volume and frequency are low, running the process once a month is recommended.

When you run the Update Person Search Keywords process, the whole PER\_KEYWORDS table is refreshed; therefore, you are recommended to run the process at times of low activity to avoid performance problems.

## **Person-Record Keyword Searches: Explained**

The application searches for keyword values in these attributes of a person's records: department, job name and code, position name and code, person name, primary e-mail, primary phone, work location, competencies, language skills, licenses and certifications, school education, awards and honors, affiliations, areas of interest, and areas of expertise.

This topic describes:

- Access to restricted information

- Keyword indexing
- Searches using date-effective keywords

### **Access to Restricted Information**

Access to information about a person's competencies, language skills, licenses and certifications, school education, awards and honors, and affiliations is restricted to a person's line managers. For example, if a line manager searches for a language skill and a match is found in the language-skills information of the manager's direct or indirect reports, that information appears in the search results. Restricted information is not searched and is never included in search results when the searcher is not a line manager. However, if the match is found in public information, such as areas of expertise, it appears in the search results for any user.

### **Keyword Indexing**

Keywords are indexed values, which means that they are copied from person records and organized in a keywords table for fast retrieval. Most changes to person records are copied as they occur to ensure that there is no difference between the source and indexed values. Your enterprise can also run a keyword-refresh process to update all keywords and fix any discrepancies. Depending on when this process was last run, some recent changes to person records may not appear in search results.

### **Searches Using Date-Effective Keywords**

In the professional user person search, you can enter an effective as-of date. When date-effective values, such as work location, are copied to the keywords table, their history is not copied: only the latest change is stored in the keywords table. Therefore, if you enter both a keyword value and an effective as-of date, the search results may not be as expected.

For example:

- You change the work location of assignment 12345 from Headquarters to Regional Office on 27 January, 2011.
- The changed work location is copied automatically to the keywords table on 27 January, 2011.
- You search for a person on 1 February, 2011 using the keyword Headquarters and the effective as-of date 10 January, 2011.

Although the work location on 10 January, 2011 was Headquarters, assignment 12345 does not appear in the search results because the work location stored in the keywords table at the time of the search is Regional Office.

## **Relationship Strength in the Gallery Search: How It Is Calculated**

Gallery search results can be listed in order of the strength of the relationship between the person performing the search and each person whose assignment is in the search results: the stronger the relationship, the nearer to the top of the results an assignment appears. This topic describes how relationship-strength values are calculated for individual factors, such as proximity in the manager hierarchy and work location, and how those results are combined to give an overall relationship-strength value.

## How Relationship Strength Is Calculated

The calculation of relationship strength is based on several factors.

1. When the searcher's primary assignment is in the same organization or position hierarchy as a person's assignment, the strength of the relationship depends on their proximity to each other in the hierarchy. To calculate the relationship strength, 100 is divided by the number of boundaries plus 1 between the searcher and the person, as shown in the following table.

Hierarchy Boundaries	Calculation	Relationship Strength (%)
0	100/1	100
1	100/2	50
2	100/3	33.3
3	100/4	25

The maximum number of hierarchy boundaries to include in the calculation is 4 by default. You can set this value for the enterprise on the HR: Maximum Hierarchy Proximity profile option.

2. When the searcher's primary assignment is in the same manager hierarchy as a person's assignment, the strength of the relationship depends on their proximity to each other in any direction in the hierarchy. To calculate the relationship strength, 100 is divided by the number of people removed from the searcher the person is, as shown in the following table.

People	Calculation	Relationship Strength (%)
1	100/1	100
2	100/2	50
3	100/3	33.3
4	100/4	25

Only the manager hierarchy associated with the line manager of the searcher's primary assignment is included in the calculation.

The maximum number of hierarchy boundaries to include in the calculation is 4 by default. You can set this value for the enterprise on the HR: Maximum Hierarchy Proximity profile option.

3. The location on the searcher's primary assignment is compared with the location on the person's assignment. Relationship strength values are allocated according to the relative locations of the searcher and the person, as shown in the following table.

Location	Relationship Strength (%)
Same floor of building	100
Same building	80

Same postal code	60
Same town or city	40
Same country	20

People in a different country from the searcher have no relationship with the searcher.

4. The number of times the searcher selects a person's assignment from the search results is recorded automatically. This value is compared with the maximum number of times the searcher has selected any person and assignment in a specified period. For example, if the searcher selects Andrew Jones 10 times in a week and Gloria Schmidt twice in a week, then the relationship strength values are 100% for Andrew Jones and 20% for Gloria Schmidt. The period of time during which the searcher's selection history is recorded is 7 days by default. You can set this value for the enterprise on the HR: Selection History Timeout profile option.
5. If the searcher is in the same social network as the person, then the relationship-strength value is 100%; otherwise, the relationship-strength value is 0%.
6. The relationship strength for each individual factor is multiplied by a weighting value, which is 0.5 by default, as shown in the following example.

Factor	Relationship Strength (%)	Weighting	Result (%)
Organization hierarchy proximity	100	0.5	50
Position hierarchy proximity	0	0.5	0
Manager hierarchy proximity	100	0.5	50
Location proximity	80	0.5	40
Selection history	40	0.5	20
Social network	100	0.5	50
Totals		3	210

You can change the weighting values for individual factors on the relevant profile options, such as HR: Manager Hierarchy Weight and HR: Location Proximity Weight, to change the relative importance of those factors.

7. Each search result has a default searcher rating of 3, which has no effect on the relationship strength. However, the searcher can set this rating for individual results to a value between 1 and 5; values above 3 increase the relationship strength and values below 3 decrease it.

Each rating value is associated with a multiplying factor. The highest multiplying factor (the one used when the searcher sets the rating for a search result to 5) is specified on the profile option HR: Relationship Priority Factor, which is set to 2 by default. This table shows the default multiplying factors

Searcher Rating	Multiplying Factor
1	1/2
2	1/1.5
3	1
4	1.5
5	2

The total of the individual relationship-strength percentages is multiplied by the multiplying factor associated with the searcher's rating. For example, if the default rating (3) applies, then  $210 \times 1 = 210$ . The searcher can double the multiplying factor by setting a search result's rating to 5 or halve it by setting the rating to 1.

If you change the setting of HR: Relationship Priority Factor, then you automatically change the associated multiplying factors. This table shows the multiplying factors for HR: Relationship Priority Factors from 3 through 6.

Searcher Rating:	1	2	3	4	5
HR: Relationship Priority Factor 3	1/3	1/2	1	2	3
HR: Relationship Priority Factor 4	1/4	1/2.5	1	2.5	4
HR: Relationship Priority Factor 5	1/5	1/3	1	3	5
HR: Relationship Priority Factor 6	1/6	1/3.5	1	3.5	6

If you increase the HR: Relationship Priority Factor value, you increase the effect of the searcher's ratings relative to the other factors.

- The result of multiplying the total of the individual percentages by the factor associated with the searcher's rating is divided by the sum

of the individual weighting values. The result of this calculation is the relationship strength between the searcher and the person in the search result. For example:  $210/3=70\%$

Results that are greater than 100 are set to 100%.

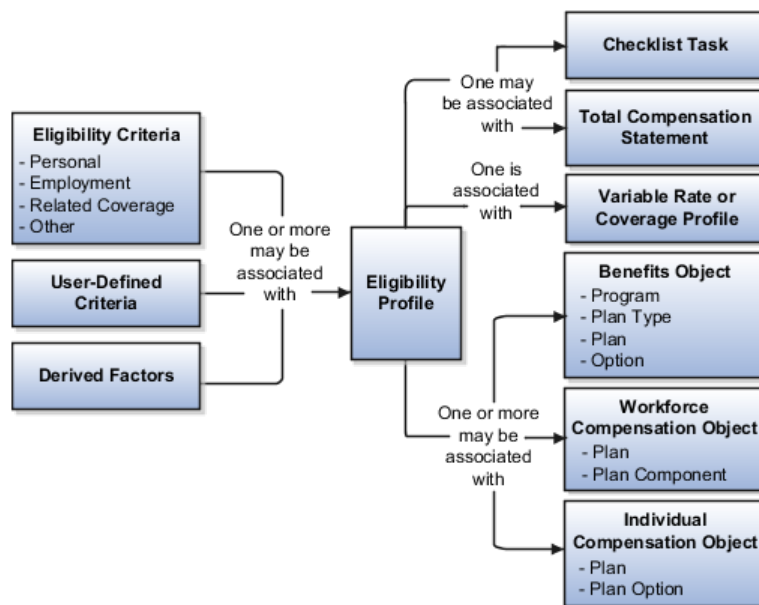
Because the factors that contribute to this calculation are likely to change often, the calculation runs daily by default and the results are stored. However, you can schedule the Calculate Relationship Strength process to suit local requirements.

## Define Eligibility Profiles

### Eligibility Components: How They Work Together

You add eligibility criteria to an eligibility profile, and then associate the profile with an object that restricts eligibility.

The following figure shows the relationships between eligibility components.



#### Eligibility Criteria

You can add different types of eligibility criteria to an eligibility profile. For many common criteria, such as gender or employment status, you can select from a list of predefined criteria values. However, you must create user-defined criteria and derived factors before you can add them to an eligibility profile.

#### Eligibility Profile

When you add an eligibility criterion to a profile, you define how to use it to determine eligibility. For example, when you add gender as a criterion, you must specify a gender value (male or female) and whether to include or exclude persons who match that value.

## Associating the Profile with Objects

You can associate an eligibility profile with different kinds of objects:

- Associate an eligibility profile with a variable rate or variable coverage profile to establish the criteria required to qualify for that rate or coverage.
- Associate an eligibility profile with a checklist task to control whether that task appears in an allocated checklist.
- Associate an eligibility profile with a total compensation statement to apply additional eligibility criteria after statement generation population parameters.
- Associate one or more eligibility profiles with a benefits or compensation object to establish the eligibility criteria for specific plans and options.

## Derived Factors: Explained

Derived factors define how to calculate certain eligibility criteria that change over time, such as a person's age or length of service. You add derived factors to eligibility profiles and then associate the profiles with objects that restrict eligibility.

### Derived Factor Types

You can create six different types of derived factors: age, compensation, length of service, hours worked, full-time equivalent, and a combination of age and length of service.

### Determination Rules and Other Settings

For each factor that you create, you specify one or more rules about how eligibility is determined. For example, the determination rule for an age derived factor specifies the day on which to evaluate the person's calculated age for eligibility. If the determination rule is set to the first of the year, then the person's age as of the first of the year is used to determine eligibility.

For the full-time equivalent factor, you specify the minimum and maximum full-time equivalent percentage and whether to use the primary assignment or the sum of all assignments when evaluating eligibility. For example, if the percentage range is 90 to 100 percent for the sum of all assignments, then a person who works 50 percent full-time on two different assignments is considered eligible.

Other settings define the unit of measure for time or monetary amounts, rounding rules, and minimums and maximums.

## Derived Factors: Examples

The following scenarios illustrate how to define different types of derived factors:



## Age

Benefits administrators frequently use age factors to determine dependent eligibility. You can also use age as a factor when determining life insurance rates. Age factors typically define a range of ages, referred to as age bands, and rules for evaluating the person's age. The following table illustrates a set of age bands that could be used to determine eligibility for life insurance rates that vary based on age.

Derived Factor Name	Greater Than or Equal To Age Value	Less Than Age Value
Age Under 25	1	25
Age 25 to 34	25	35
Age 35 to 44	35	45
Age 45 to 54	45	55
Age 55 to 64	55	65
Age 64 or Older	65	75

The determination rule and other settings for each age band are the same:

Field	Value
Determination Rule	First of calendar year
Age to Use	Person's
Units	Year
Rounding	None

## Length of Service

A derived factor for length of service defines a range of values and rules for calculating an employee's length of service. The following table illustrates a set of length-of-service bands that could be used to determine eligibility for compensation objects such as bonuses or severance pay.

Derived Factor Name	Greater Than or Equal To Length of Service Value	Less Than Length of Service Value
Service Less Than 1	0	1
Service 1 to 4	1	5
Service 5 to 9	5	10
Service 10 to 14	10	15
Service 15 to 19	15	20
Service 20 to 24	20	25
Service 25 to 29	25	30
Service 30 Plus	30	999

The determination rule and other settings for each length-of-service band are the same:

Field	Value
Period Start Date Rule	Date of hire (This sets the beginning of the period being measured.)
Determination Rule	End of year (This sets the end of the period being measured.)
Age to Use	Person's
Units	Year
Rounding	None

## Compensation

A derived factor for compensation defines a range of values and rules for calculating an employee's compensation amount. The following table illustrates a set of compensation bands that could be used to determine eligibility for compensation objects such as bonuses or stock options.

Derived Factor Name	Greater Than or Equal To Compensation Value	Less Than Compensation Value
Less than 20000	0	20,000
Salary 20 to 34000	20,000	35,000
Salary 35 to 49000	35,000	50,000
Salary 50 to 75000	50,000	75,000
Salary 75 to 99000	75,000	100,000
Salary 100 to 200000	100,000	200,000
Salary 200000 Plus	200,000	999,999,999

The determination rule and other settings for each compensation band are the same:

Field	Value
Determination Rule	First of year
Unit of Measure	US Dollar
Source	Stated compensation
Rounding	Rounds to nearest hundred

## Age to Use: Points to Consider

The **Age to Use** value that you select is an important aspect of an age derived factor. This value determines whose birth date is used to calculate the derived age.

### Selecting Person's Age to Use

In most cases, you use the **Person's** value in the **Age to Use** field to define an age derived factor for either a participant or dependent eligibility profile. In this case,

each person's birth date is used to calculate the age criterion by which eligibility is evaluated for that person.

### Example

For example, if you select **Person's** as the **Age to Use** value, and associate the age derived factor with a dependent eligibility profile, each dependent's eligibility is evaluated based on the age calculated from his or her own birth date.

### Selecting Other Age to Use Values

You might select another predefined value in the **Age to Use** field if you intend to evaluate participant or dependent eligibility or rates based on someone else's age, such as a spouse, child, or other dependent.

---

#### Note

If you choose **Inherited Age**, the evaluation is based on the date of birth as defined in the person extra information flexfield.

---

### Example

If you select **Person's oldest child** as the **Age to Use** value, and associate this derived factor with a dependent eligibility profile, eligibility for all dependents is evaluated based on the age of the participant's oldest child. Consequently, when the oldest child reaches the maximum age of eligibility, for instance, all dependents become ineligible.

## User-Defined Criteria: Explained

You can define your own criteria to meet any special needs of your organization. For example, if your organization employs deep sea divers and offers different benefits or benefits rates based on how deep they dive, you can create Depth of Diving as a new eligibility criterion.

The data for the eligibility criterion must be stored in a table that is accessible to the application. If the data is stored in either the Person or Assignment table, you can select the table and column from a list, and then specify the lookup type used to validate input values. You can also allow a range of valid values if the field stores a numeric value or a date.

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#### Note

To select the correct values for the column and lookup fields, you must have a basic understanding of the structure of the table that stores the eligibility criterion information.

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If the data is stored in a table other than the Person or Assignment table, you must first create a formula to retrieve the data from the table, and then set the formula type to **User-Defined Criteria**.

You can define two sets of criteria on the User-Defined Criteria page. The participant must meet the criteria defined in either set to be considered eligible

(or to be excluded from eligibility if the **Exclude** check box is selected when the criteria is added to an eligibility profile).

After you have created your user-defined criteria, you can add it to an eligibility profile.

## User-Defined Criteria: Examples

The following scenarios illustrate how to define different types of user-defined criteria. In each example, you must first create the user-defined criteria and then add it to an eligibility profile and set the criteria values to use in the profile.

### Set Eligibility Based on Custom Attribute

A commercial diving company wants to offer different benefit rates to employees who dive to depths greater than 330 feet. This data is stored for each employee in a custom attribute called Dive\_Depth in the Person table. To define eligibility based on diving depth, set the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Table	Person
Column	Dive_Depth_Attribute
Lookup	Dive_Depth_Validation
Enable range validation one	Selected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab, which is under the Other tab on the Create or Edit Eligibility Profile page:

Field	Value
Set 1 Meaning	329
Set 1 To Meaning	9999
Exclude	Deselected

Save the eligibility profile and associate it with a variable rate profile.

### Exclude Work-at-Home Assignments from Eligibility

An employer wants to exclude work-at-home assignment from eligibility for a transportation benefit option. To accomplish this, set the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Table	Assignment
Column	Work_at_home
Lookup	YES_NO
Enable range validation one	Deselected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab:

Field	Value
Set 1 Meaning	Yes
Exclude	Selected

Save the eligibility profile and associate it with the transportation benefit option.

### Use a Formula to Determine Eligibility

A company wants to offer a spot incentive bonus to hourly employees who worked 100 percent of their scheduled shift hours in a three month period. To determine eligibility for the bonus, create a formula that calculates scheduled hours less worked hours for each week in the previous three months. If the result of successive calculations is less than or equal to zero, then the formula returns a result of Yes. The first step is to create the formula. Once the formula has been defined, create a user-defined criterion to run the formula. Enter the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Access One Formula	Worked_Sched_Hours_Percent
Enable range validation one	Deselected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab:

Field	Value
Set 1 Meaning	Yes
Exclude	Deselected

Save the eligibility profile and associate it with the bonus compensation object.

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#### Note

For very complex scenarios, your organization or implementation team can write a custom program to evaluate eligibility, and then create a formula that calls the custom program.

---

## Range of Scheduled Hours: Example

This example illustrates how to define eligibility criteria based on the number of hours an employee is scheduled to work within a specified period of time.

### Weekly and Monthly Ranges

You want to limit eligibility for a benefits offering to employees who were scheduled to work between 30 and 40 hours each week or between 130-160 each

month as of the end of the previous quarter. To do this, add two different ranges on the Range of Scheduled Hours tab, which is under the Employment tab on the Create or Edit Eligibility Profile page.

Set the values for the first range as shown in this table:

Field	Value
Sequence	1
Minimum Hours	30
Maximum Hours	40
Scheduled Enrollment Periods	Weekly
Determination Rule	End of previous quarter

Set the values for the second range as shown in this table:

Field	Value
Sequence	2
Minimum Hours	130
Maximum Hours	160
Scheduled Enrollment Periods	Monthly
Determination Rule	End of previous quarter

## Eligibility Profiles: Explained

An eligibility profile defines criteria used to determine whether a person qualifies for a benefits offering, variable rate profile, variable coverage profile, compensation object, checklist task, or other object for which eligibility must be established.

The following are key aspects of working with eligibility profiles:

- Planning and prerequisites
- Specifying the profile type and usage
- Defining eligibility criteria
- Excluding from eligibility
- Assigning sequence numbers
- Adding multiple criteria
- Viewing the criteria hierarchy

### Planning and Prerequisites

Before you create an eligibility profile, consider the following:

- If an eligibility profile uses derived factors, user-defined formulas, or user-defined criteria to establish eligibility, you must create these items before you create the eligibility profile.

- If you are defining eligibility criteria for a checklist task, variable rate profile, or variable coverage profile, you must include all criteria in a single eligibility profile, because these objects can be associated with only one eligibility profile. You can, however, associate multiple eligibility profiles with benefits offerings and compensation objects.
- Eligibility profiles are reusable, so use names that identify the criteria being defined rather than the object with which the profile is associated. For example, use "Age-20-25+NonSmoker" rather than "Supplemental Life-Min Rate."

## Specifying Profile Types and Usage

When you create an eligibility profile, you specify whether the profile applies to participants or dependents. Use participant profiles to define criteria for employees or ex-employees who are eligible for company-sponsored benefits. Use dependent profiles for participants' spouses, family members, or other individuals who qualify as dependents. Dependent profiles can be associated only with plans and plan types.

An eligibility profile's usage determines the type of objects the profile can be associated with. For example, if you set the profile usage to **Benefits**, the profile is available for selection when you are associating eligibility profiles with benefits objects, such as programs, plans, plan types, options, variable rate profiles, and variable coverage profiles. You can also set the usage to **Compensation**, **Checklist**, or **Global**.

## Defining Eligibility Criteria

Criteria defined in an eligibility profile are divided into categories:

- **Personal:** Includes gender, person type, postal code ranges, and other person-specific criteria
- **Employment:** Includes assignment status, hourly or salaried, job, grade, and other employment-specific criteria
- **Derived factors:** Includes age, compensation, length of service, hours worked, full-time equivalent, and a combination of age and length of service
- **Other:** Includes miscellaneous and user-defined criteria
- **Related coverage:** Includes criteria based on whether a person is covered by, eligible for, or enrolled in other benefits offerings.

Some criteria, such as gender, provide a fixed set of choices. The choices for other criteria, such as person type, are based on values defined in tables. You can define multiple criteria for a given criteria type.

## Excluding from Eligibility

For each eligibility criterion that you add to a profile, you can indicate whether persons who meet the criterion are considered eligible or are excluded from

eligibility. For example, an age factor can include persons between 20 and 25 years old or exclude persons over 65. If you exclude certain age bands, then all age bands not explicitly excluded are automatically included. Similarly, if you include certain age bands, then all age bands not explicitly included are automatically excluded.

### **Assigning Sequence Numbers**

You must assign a sequence number to each criterion. The sequence determines the order in which the criterion is evaluated relative to other criteria of the same type.

### **Adding Multiple Criteria**

If you define multiple values for the same criteria type, such as two postal code ranges, a person needs to satisfy at least one of the criteria to be considered eligible. For example, a person who resides in either postal range is eligible.

If you include multiple criteria of different types, such as gender and age, a person must meet at least one criterion defined for each criteria type.

### **Viewing the Criteria Hierarchy**

Select the View Hierarchy tab to see a list of all criteria that you have saved for this profile. The list is arranged by criteria type.

## **Combining Eligibility Criteria or Creating Separate Profiles: Points to Consider**

You can define multiple criteria in an eligibility profile or create separate profiles for individual criterion. To determine the best approach, consider the following:

- Does the object you are defining eligibility for support multiple eligibility profiles?
- What is the best approach in terms of efficiency and performance?

### **Support for Multiple Eligibility Profiles**

If you are defining eligibility criteria for a checklist task, variable rate profile, or variable coverage profile, you must include all criteria in a single eligibility profile, because these objects can be associated with only one eligibility profile. You can, however, associate multiple eligibility profiles with benefits offerings and compensation objects.

### **Efficiency and Performance**

For optimum performance and efficiency, you should usually attach profiles at the highest possible level in the benefits object hierarchy and avoid duplicating criteria at lower levels. Plan types in program, plans in program, plans, and options in plans inherit the eligibility criteria associated with the program. For example, to be eligible for a benefits plan type, a person must satisfy eligibility profiles defined at the program level and at the plan type in program level.



However, it is sometimes faster to create more than one profile and attach the profiles at various levels in the hierarchy. For example, you might exclude employees from eligibility at the program level who do not have an active assignment. At the level of plan type in program, you might exclude employees who do not have a full-time assignment. Finally, at the plan level, you might exclude employees whose primary address is not within a service area you define.

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**Note**

Eligibility criteria can be used to include or exclude persons from eligibility. Sequencing of criteria is more complicated when you mix included and excluded criteria in the same profile. For ease of implementation, try to keep all excluded criteria in a separate eligibility profile.

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## Eligibility Profiles: Examples

The following examples illustrate scenarios where eligibility profiles are needed and briefly describe the setup required for each scenario.

### 401(k) Eligibility

A 401(k) savings plan is restricted to full-time employees under 65 years of age. To restrict eligibility for the plan, you must first create a derived factor for the age band of 65 and older, if one does not already exist. Then create an eligibility profile. Set the **Profile Usage** to **Benefits** and the **Profile Type** to **Participant**. Add the following criteria:

Criteria Type	Name	Values
Employment	Assignment Category	Full-Time
Derived Factor	Age	Select the age derived factor you created previously, and then select the <b>Exclude</b> check box.

Associate the eligibility profile with the 401(k) plan.

### Bonus Eligibility

A bonus is offered to all employees who received the highest possible performance rating in all rating categories. To restrict eligibility for the bonus, create an eligibility profile. Set the **Profile Usage** to **Compensation** and the **Profile Type** to **Participant**. Add the following criteria for each rating category:

Criteria Type	Name	Values
Employment	Performance Rating	Select the performance template and rating name, and then select the highest rating value.

Associate the eligibility profile with the bonus compensation object.

## Checklist Task Eligibility

A new hire checklist contains tasks that do not apply to employees who work in India. To restrict eligibility for the tasks, create a participant eligibility profile. Set the **Profile Usage** to **Checklist** and the **Profile Type** to **Participant**. Add the following criteria:

Criteria Type	Name	Values
Employment	Work Location	Select <b>India</b> as the work location, and then select the <b>Exclude</b> check box.

Associate the eligibility profile with each checklist task that does not apply to workers in India.

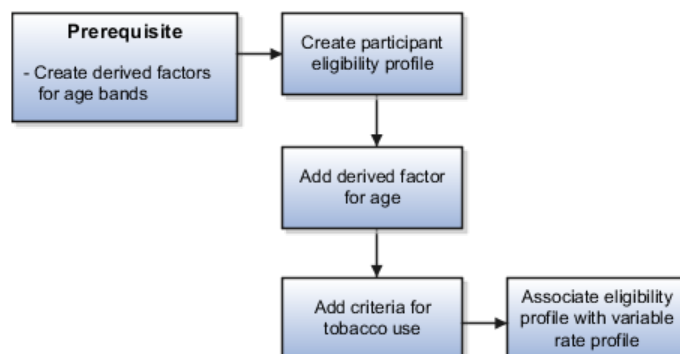
## Creating a Participant Eligibility Profile: Worked Example

This example demonstrates how to create a participant eligibility profile used to determine eligibility for variable life insurance rates. The profile includes two eligibility criteria: age and tobacco. Once the eligibility profile is complete, you can associate it with a variable rate profile.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In this Example
What is the profile type?	Participant
What type of object is associated with this profile?	Variable rate for benefits offering
What types of eligibility criteria are defined in this profile?	Age derived factor (must have been previously defined) Uses Tobacco criteria
What are the criteria values?	Age: Under 30 Tobacco Use: None
Should persons meeting these criteria be included or excluded from eligibility?	Included

The following figure shows the tasks to complete in this example:



---

## Note

In this example, you create one eligibility profile that defines the requirements for a single variable rate. Typically, you create a set of eligibility profiles, one for each variable rate. When you have completed all steps described in this example, you can repeat them, varying the age and tobacco use criteria, to create a separate profile for each additional rate.

---

## Prerequisites

1. Create an age derived factor for ages less than 30.

## Creating the Eligibility Profile

1. In the Plan Configuration work area, click **Manage Eligibility Profiles**.
2. Click the **Create** menu, and then click **Create Participant Profile**.
3. In the Eligibility Profile Definition region of the Create Participant Eligibility Profile page, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Name	Age Under 30+Non-Smoking
Profile Usage	Benefits
Description	Participant, age under 30, non smoker
Status	Active
Assignment to Use	Any assignment

## Adding the Derived Factor for Age

1. In the Eligibility Criteria region, select the Derived Factors tab.
2. On the Age tab, click **Create**.
3. In the **Sequence** field, enter 1.
4. In the **Age** field, select the derived factor that you previously defined for ages under 30.
5. Do not select the **Exclude** check box.

## Adding the Criteria for Tobacco Use

1. Select the Personal tab.
2. On the Uses Tobacco tab, click **Create**.
3. In the **Sequence** field, enter 1.
4. In the **Tobacco Use** field, select None.
5. Do not select the **Exclude** check box.
6. Click **Save and Close**.

## Associating the Eligibility Profile with a Variable Rate Profile

1. In the Plan Configuration work area, click **Manage Benefits Rates**.
2. Select the Variable Rates tab.
3. Click **Create**.
4. In the **Eligibility Profile** field, select the eligibility profile you just created.
5. Complete other fields as appropriate for the rate.
6. Click **Save and Close**.

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### Note

You can reuse this eligibility profile by associating it with other objects that restrict eligibility, including benefits offerings, compensation plans, and checklist tasks.

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## Common HCM Configuration: Define Workforce Business Processes and Events

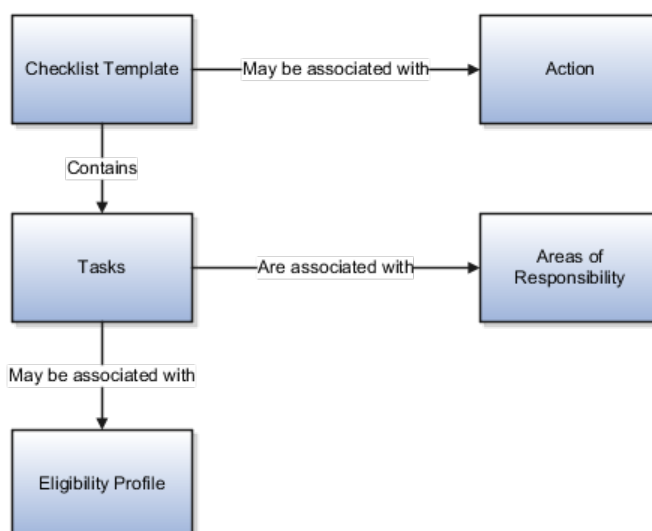
### Define Checklists

#### Checklist Components: How They Fit Together

Use checklists for actions that require the completion of standard tasks, such as creating users or reassigning resources. For example, employee hire and termination actions typically require a number of people to complete standard tasks. You create and maintain tasks within a checklist template. You can create checklist templates that can be allocated to persons either automatically or manually.

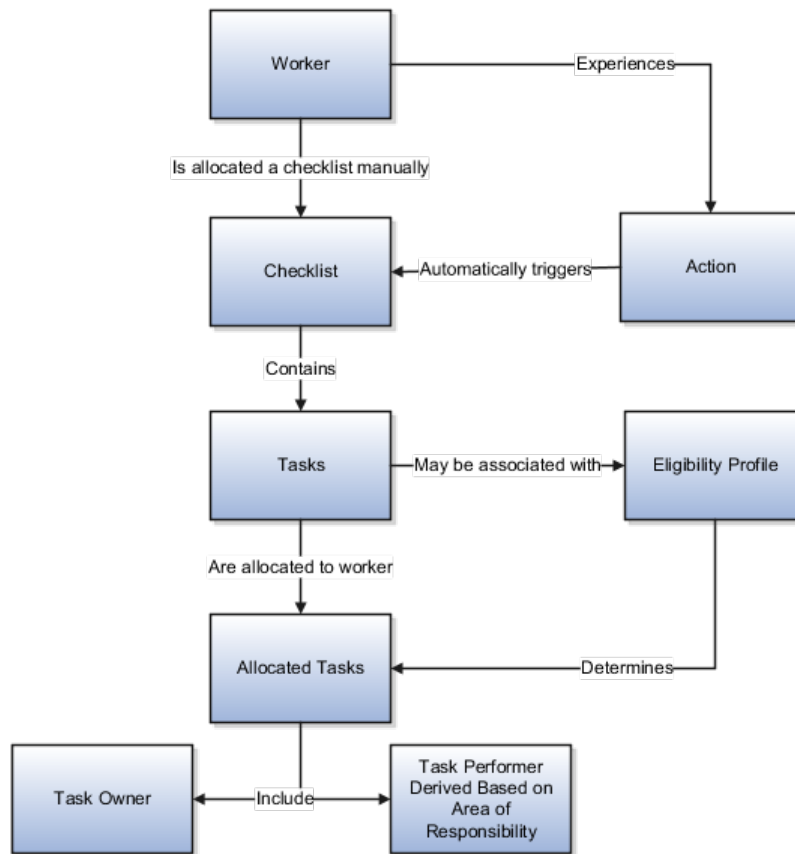
The figure shows the components of a checklist template and their major relationships.

HR Specialist Creates Checklist Template



This figure shows the components of the checklist allocation process and how they relate to each other.

#### Checklist is Allocated to Worker



### Action

Actions track changes in personal circumstances, for example, new hire, transfer, or termination. Link an action to a checklist template to allocate the checklist to persons automatically when they experience the action. Note that, the checklist template is still available for manual allocation, even if it is linked to an action.

### Task

You create tasks within a checklist template, however, managers can also create and maintain tasks within an allocated checklist. You can enter a task duration and specify if a task is required. When the task appears in an allocated checklist, the date in the target end date field reflects this duration. You can set the checklist status to completed only if all the required tasks are complete.

### Eligibility Profile

Link an eligibility profile to a checklist task to control whether that task appears in a specific allocated checklist. The task appears in the allocated checklist of a worker only if the worker matches the eligibility criteria.

### Task Performer

Performer is the person carrying out the task. You select the task performers' areas of responsibility when you create a checklist template. During checklist

allocation, the persons with the selected responsibilities are automatically assigned as performers for the tasks and notified of the assignment. You can view, but not update, the task performers in the allocated checklist.

### **Allocated Checklist**

Allocated checklists are those that have been allocated to workers and contain the tasks relevant to them.

### **Task Owner**

Task owner, generally synonymous with a manager, is the person responsible for ensuring task completion. Managers can display the tasks within an allocated checklist and monitor the status themselves or assign alternative owners for the tasks.

## **Checklist and Task Statuses: Explained**

Managers can display the allocated checklists for their workers and update the checklist and task statuses as necessary. Performers and owners can view the checklist tasks assigned to them in their worklist and update the task status. Note that these statuses are not used to determine the checklist or task availability, they are for information purposes only.

The checklist and task statuses are:

- Initiated
- Completed
- Rejected
- Outstanding
- In Progress
- Suspended

### **Initiated**

The status of the checklist and the tasks in the checklist is automatically set to initiated when you allocate the checklist.

### **Completed**

Use this status to indicate that the checklist or task is complete. You can set the checklist status to completed only if all the required tasks are complete. The checklist status is automatically set to completed when you set the status of the last required task to completed. Note that the task does not disappear from the allocated checklist or the worklist when you set the status to completed. You must delete it yourself if required.

### **Rejected**

Use this status to reject a checklist, for example, because it was wrongly allocated to a person. Task owners or performers can use this status to decline ownership of a task, for example, if the task has been wrongly assigned to them.

## Outstanding

Use this status to indicate that the checklist or task is not complete by the target date.

## Other Task Statuses

Use the other statuses to record progress made against the checklist or tasks, for example, to indicate that tasks are in progress or the checklist is suspended because of unavailability of resources.

# Creating a Checklist Template: Worked Example

This example demonstrates how to create a checklist template that is allocated automatically to all newly hired workers to track certain tasks involved in hiring a worker. The tasks in the checklist vary according to eligibility rules.

The following table summarizes key decisions for this scenario:

Decisions to Consider	In this Example
Allocate checklist automatically?	Yes, checklist is allocated automatically to persons experiencing new hire action.
Which tasks to include in the checklist?	<ul style="list-style-type: none"><li>• Create E-mail Account</li><li>• Issue Laptop</li><li>• Issue Meal Vouchers</li></ul>
What are the task performers' responsibilities?	<ul style="list-style-type: none"><li>• Performers for the tasks Create E-mail Account and Issue Laptop have the responsibility IT Support Representative.</li><li>• Performers for the task Issue Meal Vouchers have the responsibility HR Representative.</li></ul>
Do eligibility rules apply to any tasks?	<ul style="list-style-type: none"><li>• Issue Laptop applies to manager users only</li><li>• Issue Meal Vouchers applies to work location India only</li></ul>

Create a checklist template, associate it with the Hire action, and create three tasks for the template.

## Prerequisites

1. Create an eligibility profile **Manager\_Users** for all manager users.
2. Create an eligibility profile **Work\_Location\_India** for work location India.
3. Create a responsibility **IT Support Representative** and assign persons to this responsibility.

## Creating a Checklist Template

1. On the Person Management Overview page, click **Manage Checklist Templates** to open the Manage Checklist Templates page.



2. Click **Create**.
3. On the Create Checklist Templates page, complete the fields, as shown in this table:

Field	Value
Name	New Hire
Category	On Boarding
Action	Hire

## Creating Checklist Tasks

1. In the Tasks region, click **Create**.
2. For each task, complete the fields, as shown in this table:

Field	Create E-mail Account Task	Issue Laptop Task	Issue Meal Vouchers Task
Required	Yes	No	No
Eligibility Profile		Manager_Users	India_Work_Location
Responsibility Type	IT Support Representative	IT Support Representative	HR Representative

3. Click **Submit**.

## FAQs for Define Checklists

### Can managers make changes in the checklist template after creating it?

No. Managers cannot edit or delete the checklist template that they create using the save as template option. However, they can allocate the checklist template to workers and edit the checklist and task attributes within the allocated checklists. The HR specialist can make changes in the checklist template if required and make the revised template available for allocation to all users.

### How do changes in the checklist template affect allocated checklists?

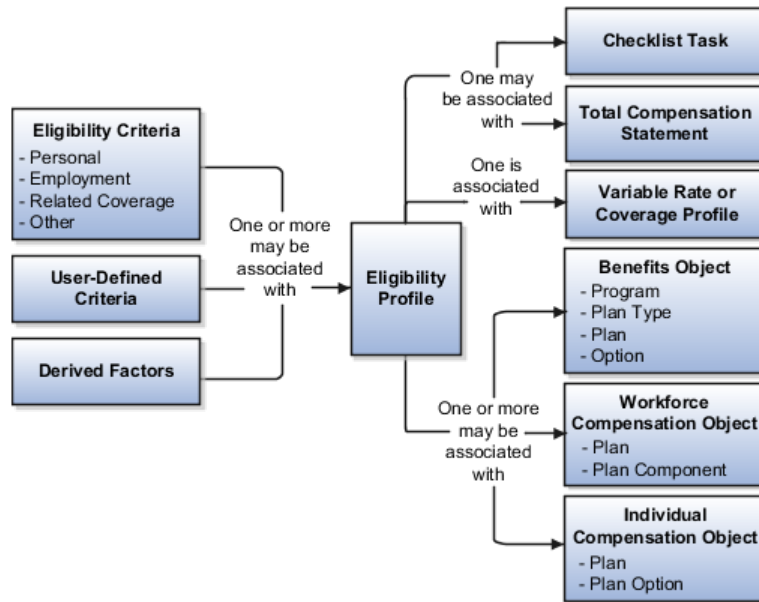
Each allocated checklist is a specific instance of the checklist template. Therefore, changes in the checklist template do not affect the allocated checklists. Similarly, the checklist template is unaffected by changes in the allocated checklists.

## Define Profile Eligibility

## Eligibility Components: How They Work Together

You add eligibility criteria to an eligibility profile, and then associate the profile with an object that restricts eligibility.

The following figure shows the relationships between eligibility components.



## Eligibility Criteria

You can add different types of eligibility criteria to an eligibility profile. For many common criteria, such as gender or employment status, you can select from a list of predefined criteria values. However, you must create user-defined criteria and derived factors before you can add them to an eligibility profile.

## Eligibility Profile

When you add an eligibility criterion to a profile, you define how to use it to determine eligibility. For example, when you add gender as a criterion, you must specify a gender value (male or female) and whether to include or exclude persons who match that value.

## Associating the Profile with Objects

You can associate an eligibility profile with different kinds of objects:

- Associate an eligibility profile with a variable rate or variable coverage profile to establish the criteria required to qualify for that rate or coverage.
- Associate an eligibility profile with a checklist task to control whether that task appears in an allocated checklist.
- Associate an eligibility profile with a total compensation statement to apply additional eligibility criteria after statement generation population parameters.
- Associate one or more eligibility profiles with a benefits or compensation object to establish the eligibility criteria for specific plans and options.

## Derived Factors: Explained

Derived factors define how to calculate certain eligibility criteria that change over time, such as a person's age or length of service. You add derived factors to eligibility profiles and then associate the profiles with objects that restrict eligibility.

## Derived Factor Types

You can create six different types of derived factors: age, compensation, length of service, hours worked, full-time equivalent, and a combination of age and length of service.

## Determination Rules and Other Settings

For each factor that you create, you specify one or more rules about how eligibility is determined. For example, the determination rule for an age derived factor specifies the day on which to evaluate the person's calculated age for eligibility. If the determination rule is set to the first of the year, then the person's age as of the first of the year is used to determine eligibility.

For the full-time equivalent factor, you specify the minimum and maximum full-time equivalent percentage and whether to use the primary assignment or the sum of all assignments when evaluating eligibility. For example, if the percentage range is 90 to 100 percent for the sum of all assignments, then a person who works 50 percent full-time on two different assignments is considered eligible.

Other settings define the unit of measure for time or monetary amounts, rounding rules, and minimums and maximums.

## Derived Factors: Examples

The following scenarios illustrate how to define different types of derived factors:

### Age

Benefits administrators frequently use age factors to determine dependent eligibility. You can also use age as a factor when determining life insurance rates. Age factors typically define a range of ages, referred to as age bands, and rules for evaluating the person's age. The following table illustrates a set of age bands that could be used to determine eligibility for life insurance rates that vary based on age.

Derived Factor Name	Greater Than or Equal To Age Value	Less Than Age Value
Age Under 25	1	25
Age 25 to 34	25	35
Age 35 to 44	35	45
Age 45 to 54	45	55
Age 55 to 64	55	65
Age 64 or Older	65	75

The determination rule and other settings for each age band are the same:

Field	Value
Determination Rule	First of calendar year

Age to Use	Person's
Units	Year
Rounding	None

### Length of Service

A derived factor for length of service defines a range of values and rules for calculating an employee's length of service. The following table illustrates a set of length-of-service bands that could be used to determine eligibility for compensation objects such as bonuses or severance pay.

Derived Factor Name	Greater Than or Equal To Length of Service Value	Less Than Length of Service Value
Service Less Than 1	0	1
Service 1 to 4	1	5
Service 5 to 9	5	10
Service 10 to 14	10	15
Service 15 to 19	15	20
Service 20 to 24	20	25
Service 25 to 29	25	30
Service 30 Plus	30	999

The determination rule and other settings for each length-of-service band are the same:

Field	Value
Period Start Date Rule	Date of hire (This sets the beginning of the period being measured.)
Determination Rule	End of year (This sets the end of the period being measured.)
Age to Use	Person's
Units	Year
Rounding	None

### Compensation

A derived factor for compensation defines a range of values and rules for calculating an employee's compensation amount. The following table illustrates a set of compensation bands that could be used to determine eligibility for compensation objects such as bonuses or stock options.

Derived Factor Name	Greater Than or Equal To Compensation Value	Less Than Compensation Value
Less than 20000	0	20,000
Salary 20 to 34000	20,000	35,000
Salary 35 to 49000	35,000	50,000

Salary 50 to 75000	50,000	75,000
Salary 75 to 99000	75,000	100,000
Salary 100 to 200000	100,000	200,000
Salary 200000 Plus	200,000	999,999,999

The determination rule and other settings for each compensation band are the same:

Field	Value
Determination Rule	First of year
Unit of Measure	US Dollar
Source	Stated compensation
Rounding	Rounds to nearest hundred

## Age to Use: Points to Consider

The **Age to Use** value that you select is an important aspect of an age derived factor. This value determines whose birth date is used to calculate the derived age.

### Selecting Person's Age to Use

In most cases, you use the **Person's** value in the **Age to Use** field to define an age derived factor for either a participant or dependent eligibility profile. In this case, each person's birth date is used to calculate the age criterion by which eligibility is evaluated for that person.

#### Example

For example, if you select **Person's** as the **Age to Use** value, and associate the age derived factor with a dependent eligibility profile, each dependent's eligibility is evaluated based on the age calculated from his or her own birth date.

### Selecting Other Age to Use Values

You might select another predefined value in the **Age to Use** field if you intend to evaluate participant or dependent eligibility or rates based on someone else's age, such as a spouse, child, or other dependent.

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#### Note

If you choose **Inherited Age**, the evaluation is based on the date of birth as defined in the person extra information flexfield.

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#### Example

If you select **Person's oldest child** as the **Age to Use** value, and associate this derived factor with a dependent eligibility profile, eligibility for all dependents is evaluated based on the age of the participant's oldest child. Consequently, when the oldest child reaches the maximum age of eligibility, for instance, all dependents become ineligible.

## User-Defined Criteria: Explained

You can define your own criteria to meet any special needs of your organization. For example, if your organization employs deep sea divers and offers different benefits or benefits rates based on how deep they dive, you can create Depth of Diving as a new eligibility criterion.

The data for the eligibility criterion must be stored in a table that is accessible to the application. If the data is stored in either the Person or Assignment table, you can select the table and column from a list, and then specify the lookup type used to validate input values. You can also allow a range of valid values if the field stores a numeric value or a date.

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### Note

To select the correct values for the column and lookup fields, you must have a basic understanding of the structure of the table that stores the eligibility criterion information.

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If the data is stored in a table other than the Person or Assignment table, you must first create a formula to retrieve the data from the table, and then set the formula type to **User-Defined Criteria**.

You can define two sets of criteria on the User-Defined Criteria page. The participant must meet the criteria defined in either set to be considered eligible (or to be excluded from eligibility if the **Exclude** check box is selected when the criteria is added to an eligibility profile).

After you have created your user-defined criteria, you can add it to an eligibility profile.

## User-Defined Criteria: Examples

The following scenarios illustrate how to define different types of user-defined criteria. In each example, you must first create the user-defined criteria and then add it to an eligibility profile and set the criteria values to use in the profile.

### Set Eligibility Based on Custom Attribute

A commercial diving company wants to offer different benefit rates to employees who dive to depths greater than 330 feet. This data is stored for each employee in a custom attribute called Dive\_Depth in the Person table. To define eligibility based on diving depth, set the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Table	Person
Column	Dive_Depth_Attribute
Lookup	Dive_Depth_Validation
Enable range validation one	Selected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab, which is under the Other tab on the Create or Edit Eligibility Profile page:

Field	Value
Set 1 Meaning	329
Set 1 To Meaning	9999
Exclude	Deselected

Save the eligibility profile and associate it with a variable rate profile.

### Exclude Work-at-Home Assignments from Eligibility

An employer wants to exclude work-at-home assignment from eligibility for a transportation benefit option. To accomplish this, set the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Table	Assignment
Column	Work_at_home
Lookup	YES_NO
Enable range validation one	Deselected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab:

Field	Value
Set 1 Meaning	Yes
Exclude	Selected

Save the eligibility profile and associate it with the transportation benefit option.

### Use a Formula to Determine Eligibility

A company wants to offer a spot incentive bonus to hourly employees who worked 100 percent of their scheduled shift hours in a three month period. To determine eligibility for the bonus, create a formula that calculates scheduled hours less worked hours for each week in the previous three months. If the result of successive calculations is less than or equal to zero, then the formula returns a result of Yes. The first step is to create the formula. Once the formula has been defined, create a user-defined criterion to run the formula. Enter the following values on the Create or Edit User-Defined Criteria page:

Field	Value
Access One Formula	Worked_Sched_Hours_Percent
Enable range validation one	Deselected

Save the user-defined criteria, and then add it to an eligibility profile. Set the following values on the User-Defined Criteria tab:

Field	Value
Set 1 Meaning	Yes
Exclude	Deselected

Save the eligibility profile and associate it with the bonus compensation object.

---

**Note**

For very complex scenarios, your organization or implementation team can write a custom program to evaluate eligibility, and then create a formula that calls the custom program.

---

## Range of Scheduled Hours: Example

This example illustrates how to define eligibility criteria based on the number of hours an employee is scheduled to work within a specified period of time.

### Weekly and Monthly Ranges

You want to limit eligibility for a benefits offering to employees who were scheduled to work between 30 and 40 hours each week or between 130-160 each month as of the end of the previous quarter. To do this, add two different ranges on the Range of Scheduled Hours tab, which is under the Employment tab on the Create or Edit Eligibility Profile page.

Set the values for the first range as shown in this table:

Field	Value
Sequence	1
Minimum Hours	30
Maximum Hours	40
Scheduled Enrollment Periods	Weekly
Determination Rule	End of previous quarter

Set the values for the second range as shown in this table:

Field	Value
Sequence	2
Minimum Hours	130
Maximum Hours	160
Scheduled Enrollment Periods	Monthly
Determination Rule	End of previous quarter

## Eligibility Profiles: Explained

An eligibility profile defines criteria used to determine whether a person qualifies for a benefits offering, variable rate profile, variable coverage profile, compensation object, checklist task, or other object for which eligibility must be established.

The following are key aspects of working with eligibility profiles:

- Planning and prerequisites
- Specifying the profile type and usage



- Defining eligibility criteria
- Excluding from eligibility
- Assigning sequence numbers
- Adding multiple criteria
- Viewing the criteria hierarchy

## Planning and Prerequisites

Before you create an eligibility profile, consider the following:

- If an eligibility profile uses derived factors, user-defined formulas, or user-defined criteria to establish eligibility, you must create these items before you create the eligibility profile.
- If you are defining eligibility criteria for a checklist task, variable rate profile, or variable coverage profile, you must include all criteria in a single eligibility profile, because these objects can be associated with only one eligibility profile. You can, however, associate multiple eligibility profiles with benefits offerings and compensation objects.
- Eligibility profiles are reusable, so use names that identify the criteria being defined rather than the object with which the profile is associated. For example, use "Age-20-25+NonSmoker" rather than "Supplemental Life-Min Rate."

## Specifying Profile Types and Usage

When you create an eligibility profile, you specify whether the profile applies to participants or dependents. Use participant profiles to define criteria for employees or ex-employees who are eligible for company-sponsored benefits. Use dependent profiles for participants' spouses, family members, or other individuals who qualify as dependents. Dependent profiles can be associated only with plans and plan types.

An eligibility profile's usage determines the type of objects the profile can be associated with. For example, if you set the profile usage to **Benefits**, the profile is available for selection when you are associating eligibility profiles with benefits objects, such as programs, plans, plan types, options, variable rate profiles, and variable coverage profiles. You can also set the usage to **Compensation**, **Checklist**, or **Global**.

## Defining Eligibility Criteria

Criteria defined in an eligibility profile are divided into categories:

- **Personal:** Includes gender, person type, postal code ranges, and other person-specific criteria
- **Employment:** Includes assignment status, hourly or salaried, job, grade, and other employment-specific criteria
- **Derived factors:** Includes age, compensation, length of service, hours worked, full-time equivalent, and a combination of age and length of service
- **Other:** Includes miscellaneous and user-defined criteria
- **Related coverage:** Includes criteria based on whether a person is covered by, eligible for, or enrolled in other benefits offerings.

Some criteria, such as gender, provide a fixed set of choices. The choices for other criteria, such as person type, are based on values defined in tables. You can define multiple criteria for a given criteria type.

### **Excluding from Eligibility**

For each eligibility criterion that you add to a profile, you can indicate whether persons who meet the criterion are considered eligible or are excluded from eligibility. For example, an age factor can include persons between 20 and 25 years old or exclude persons over 65. If you exclude certain age bands, then all age bands not explicitly excluded are automatically included. Similarly, if you include certain age bands, then all age bands not explicitly included are automatically excluded.

### **Assigning Sequence Numbers**

You must assign a sequence number to each criterion. The sequence determines the order in which the criterion is evaluated relative to other criteria of the same type.

### **Adding Multiple Criteria**

If you define multiple values for the same criteria type, such as two postal code ranges, a person needs to satisfy at least one of the criteria to be considered eligible. For example, a person who resides in either postal range is eligible.

If you include multiple criteria of different types, such as gender and age, a person must meet at least one criterion defined for each criteria type.

### **Viewing the Criteria Hierarchy**

Select the View Hierarchy tab to see a list of all criteria that you have saved for this profile. The list is arranged by criteria type.

## **Combining Eligibility Criteria or Creating Separate Profiles: Points to Consider**

You can define multiple criteria in an eligibility profile or create separate profiles for individual criterion. To determine the best approach, consider the following:

- Does the object you are defining eligibility for support multiple eligibility profiles?
- What is the best approach in terms of efficiency and performance?

### **Support for Multiple Eligibility Profiles**

If you are defining eligibility criteria for a checklist task, variable rate profile, or variable coverage profile, you must include all criteria in a single eligibility profile, because these objects can be associated with only one eligibility profile. You can, however, associate multiple eligibility profiles with benefits offerings and compensation objects.

### **Efficiency and Performance**

For optimum performance and efficiency, you should usually attach profiles at the highest possible level in the benefits object hierarchy and avoid duplicating

criteria at lower levels. Plan types in program, plans in program, plans, and options in plans inherit the eligibility criteria associated with the program. For example, to be eligible for a benefits plan type, a person must satisfy eligibility profiles defined at the program level and at the plan type in program level.

However, it is sometimes faster to create more than one profile and attach the profiles at various levels in the hierarchy. For example, you might exclude employees from eligibility at the program level who do not have an active assignment. At the level of plan type in program, you might exclude employees who do not have a full-time assignment. Finally, at the plan level, you might exclude employees whose primary address is not within a service area you define.

---

**Note**

Eligibility criteria can be used to include or exclude persons from eligibility. Sequencing of criteria is more complicated when you mix included and excluded criteria in the same profile. For ease of implementation, try to keep all excluded criteria in a separate eligibility profile.

---

## Eligibility Profiles: Examples

The following examples illustrate scenarios where eligibility profiles are needed and briefly describe the setup required for each scenario.

### 401(k) Eligibility

A 401(k) savings plan is restricted to full-time employees under 65 years of age. To restrict eligibility for the plan, you must first create a derived factor for the age band of 65 and older, if one does not already exist. Then create an eligibility profile. Set the **Profile Usage** to **Benefits** and the **Profile Type** to **Participant**. Add the following criteria:

Criteria Type	Name	Values
Employment	Assignment Category	Full-Time
Derived Factor	Age	Select the age derived factor you created previously, and then select the <b>Exclude</b> check box.

Associate the eligibility profile with the 401(k) plan.

### Bonus Eligibility

A bonus is offered to all employees who received the highest possible performance rating in all rating categories. To restrict eligibility for the bonus, create an eligibility profile. Set the **Profile Usage** to **Compensation** and the **Profile Type** to **Participant**. Add the following criteria for each rating category:

Criteria Type	Name	Values
Employment	Performance Rating	Select the performance template and rating name, and then select the highest rating value.

Associate the eligibility profile with the bonus compensation object.

### Checklist Task Eligibility

A new hire checklist contains tasks that do not apply to employees who work in India. To restrict eligibility for the tasks, create a participant eligibility profile. Set the **Profile Usage** to **Checklist** and the **Profile Type** to **Participant**. Add the following criteria:

Criteria Type	Name	Values
Employment	Work Location	Select <b>India</b> as the work location, and then select the <b>Exclude</b> check box.

Associate the eligibility profile with each checklist task that does not apply to workers in India.

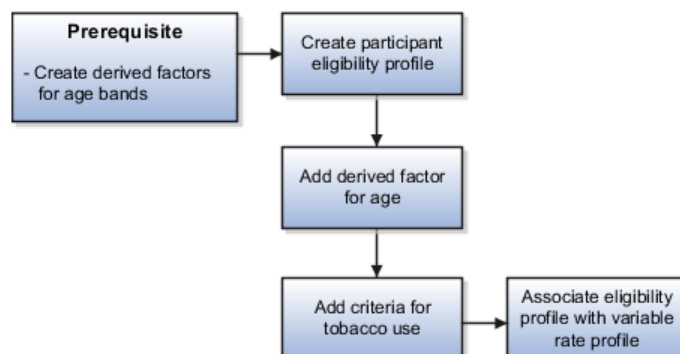
## Creating a Participant Eligibility Profile: Worked Example

This example demonstrates how to create a participant eligibility profile used to determine eligibility for variable life insurance rates. The profile includes two eligibility criteria: age and tobacco. Once the eligibility profile is complete, you can associate it with a variable rate profile.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In this Example
What is the profile type?	Participant
What type of object is associated with this profile?	Variable rate for benefits offering
What types of eligibility criteria are defined in this profile?	Age derived factor (must have been previously defined)  Uses Tobacco criteria
What are the criteria values?	Age: Under 30  Tobacco Use: None
Should persons meeting these criteria be included or excluded from eligibility?	Included

The following figure shows the tasks to complete in this example:



---

## Note

In this example, you create one eligibility profile that defines the requirements for a single variable rate. Typically, you create a set of eligibility profiles, one for each variable rate. When you have completed all steps described in this example, you can repeat them, varying the age and tobacco use criteria, to create a separate profile for each additional rate.

---

## Prerequisites

1. Create an age derived factor for ages less than 30.

## Creating the Eligibility Profile

1. In the Plan Configuration work area, click **Manage Eligibility Profiles**.
2. Click the **Create** menu, and then click **Create Participant Profile**.
3. In the Eligibility Profile Definition region of the Create Participant Eligibility Profile page, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Name	Age Under 30+Non-Smoking
Profile Usage	Benefits
Description	Participant, age under 30, non smoker
Status	Active
Assignment to Use	Any assignment

## Adding the Derived Factor for Age

1. In the Eligibility Criteria region, select the Derived Factors tab.
2. On the Age tab, click **Create**.
3. In the **Sequence** field, enter 1.
4. In the **Age** field, select the derived factor that you previously defined for ages under 30.
5. Do not select the **Exclude** check box.

## Adding the Criteria for Tobacco Use

1. Select the Personal tab.
2. On the Uses Tobacco tab, click **Create**.
3. In the **Sequence** field, enter 1.
4. In the **Tobacco Use** field, select None.
5. Do not select the **Exclude** check box.
6. Click **Save and Close**.

## Associating the Eligibility Profile with a Variable Rate Profile

1. In the Plan Configuration work area, click **Manage Benefits Rates**.
2. Select the Variable Rates tab.
3. Click **Create**.
4. In the **Eligibility Profile** field, select the eligibility profile you just created.
5. Complete other fields as appropriate for the rate.
6. Click **Save and Close**.

---

### Note

You can reuse this eligibility profile by associating it with other objects that restrict eligibility, including benefits offerings, compensation plans, and checklist tasks.

---

## Define HCM Events

### HCM Events: Explained

A common events model for Oracle Fusion Human Capital Management (HCM) products defines how to respond to certain data changes or business process trigger points. A common model enables a single event definition to drive both externally published business events and internal processes.

The events model comprises the following key components:

- Event definitions
- Event types
- Event handlers
- Published business events
- Archived event data

#### Event Definitions

An event definition identifies a set of registered HCM event objects, such as entity objects, that can be used to raise events.

#### Event Types

Event types define the type of object to be detected, the particular DML mode for the type of data change, such as update, insert, or delete, along with any rules or conditions that further qualify the event. These conditions determine whether an event triggers further processing activities, such as archiving information relating to the event, internal processing initiated by the event, or publication of business events to the SOA framework. A common example of an event type is updates to a particular object attribute.

## Event Handlers

When the conditions of an event type are satisfied, an internal handler can specify how related functional areas within HCM are notified or an external handler can specify a published event to be raised.

## Published Business Events

An implementer can associate a particular published business event with a particular event definition so that when the change is detected, the associated published business event is raised to the SOA application server. Published business events can be raised from any of the registered HCM event objects.

## Archived Event Data

When defining event types, the implementer can indicate which attribute data should be stored for auditing purposes. The availability of archived events data also can assist internal HCM products to determine the nature of specific data changes when they are notified of the occurrence of an event.

When defining which data should be archived for a particular event type, the implementer can also specify the number of calendar days after the detected event that the data must be stored. After the specified number of days, the data can be purged from the database.

# Managing HCM Events Types: Points to Consider

You can create or modify HCM event types when the predefined event types do not sufficiently meet the needs of your enterprise.

To determine your approach, consider the following questions:

- Do the predefined event types cover the conditions you want to capture for data change event detection?
- Does your enterprise have custom processes or services associated with a published business event?

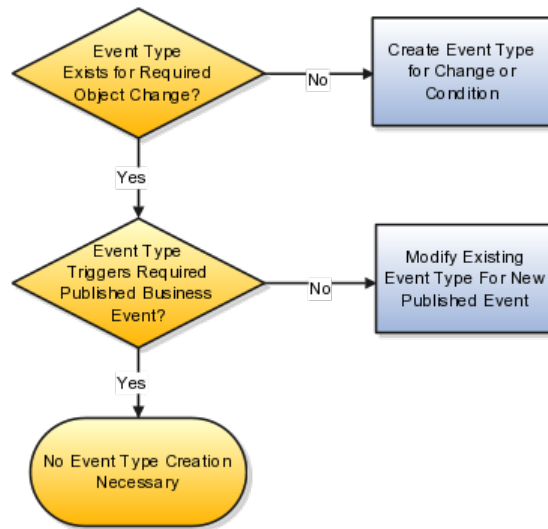
For example, you can modify an existing event type to add a different published business event to be consumed by the new process or service if that is the only modification. If there other modifications you want, such as additional detection conditions or data changes, you can create a new event type.

- Do any required SOA services already exist?

Examples of published business events as external handlers that invoke SOA processes include ChangedPersonDetails, that invokes a process in Oracle Fusion Trading Community Model, and ChangeLocation, that invokes a process in Oracle Fusion Financials. You can review existing published services in the Oracle Enterprise Repository.

## Event Type Customization

The following figure illustrates the decision points for HCM event type customization.



## Creating an Event Type from an Existing Event Type: Worked Example

This example demonstrates how to create an event type that is based on a predefined event type but captures additional data.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
Which predefined event type is closest to meeting my business needs?	PhoneUpdate
What additional data must be captured?	Extension
What condition triggers this event?	Updates to telephone extension data
What rules must be met to trigger this event?	Rule to detect changes to work telephone data

In this example, the organization wants to capture changes to telephone extension number data for people within a particular building, and notify the operator who handles incoming calls for that building. The predefined event type does not contain the extension information or publishing conditions for that data, so you add a new condition that is defined to publish only where extension data is changed.

### Choosing the Event Type to Extend

Find a predefined event type that best suits your needs by looking for object and attribute similarities. The predefined event types cannot be changed, so instead you create a copy after noting its values to use in the new event type.

1. In the regional search pane of the Setup and Maintenance work area, search for the Manage HCM Event Types task.
2. In the search results table, click **Go to Task**.



3. In the Source Object field on the Manage HCM Event Types search page, enter PhoneEO and click **Search**.
4. Select the row for PhoneUpdate and click **Edit**.
5. Note the values for this event type as shown in the following table:

Field or Tab	Value
Source Object	PhoneEO
Rule	eo.New("PhoneType") > "W" & eo.New("PhoneType") < "X"
DML Mode	Update
External Handlers Published Event Name	ChangedPersonKeywords

## Creating a Copy of the Event Type

Copy the values from the event type you want to extend into a new event type.

1. On the Manage HCM Event Types page, click **Create**.
2. In the Name field, enter a new name for the event, such as PhoneExtUpdate.
3. In the Source Object field, enter PhoneEO.
4. In the DML Mode list, select **Update**.
5. In the Storage Duration field, enter the number of days to store any archived data for this event.
6. On the External Handlers tab, click **Add Row**.
7. Search for and select the ChangedPersonKeywords published event, and then click **OK**.

## Adding Detection Rules

1. In the Rule field in Event Type Details region, enter the following rule that picks up changes on all Phone entity objects whose Phone Type attribute is Work Telephone:

```
eo.New("PhoneType") > "W" & eo.New("PhoneType") < "X".)
```

2. Run a test to make sure the rule syntax is correct.

---

### Note

There is no built-in syntax validation so testing that the rule is working as designed is strongly recommended. You can test the rule and monitor the event publication or examine the log files.

---

## Adding a New Data Attribute

1. On the Condition Attributes tab, select **Extension** and move it to the Selected Attributes list.
2. Click **Save and Close**.

## Creating an Event Type for a Custom Process: Worked Example

This example demonstrates how to create an event type that invokes a custom business process.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
What condition triggers this event?	Change to termination date data.
What process will be triggered by this event?	Custom process: <code>NotifiedTerminationDate</code> .

In this example, the business requires that the application initiates a special process whenever an administrator terminates an employee. This example creates a new event type that detects changes to termination date for employees' period of service.

### Prerequisites

1. Create the custom process (external handler) to be triggered as a result of this event detection and name it `NotifiedTerminationDate`.
2. Ensure that `NotifiedTerminationDate` exists as a published event in a namespace accessible to the application, adhering to your company standards.

---

#### Note

If an internal handler is used with an event type, its class name must be fully qualified and must exist in the system classpath.

---

### Creating an Event Type for Termination Notification

1. In the regional search pane of the Setup and Maintenance work area, search for the Manage HCM Event Types task.
2. In the search results table, click **Go to Task**.
3. On the Manage HCM Event Types page, click **Create**.
4. In the Name field, enter a new name for the event, such as `TerminationDateUpdate`.
5. In the Source Object field, enter `PeriodOfServiceEO`.
6. In the DML Mode list, select `Update`.
7. In the Storage Duration field, enter the number of days to store any archived data for this event.

### Adding a Condition Attribute

1. On the Condition Attributes tab, select one or more of the following related attributes and move them to the Selected Attributes list.
  - `AcceptedTerminationDate`
  - `ActualTerminationDate`

- AdjustedSysDate
- LastWorkingDate
- NotifiedTerminationDate
- OriginalDateOfHire
- ProjectedTerminationDate
- RehireRecommendation

### Adding a Custom Process

1. On the External Handlers tab, click **Add Row**.
2. Search for and select the NotifiedTerminationDate published event, and then click **OK**.
3. Click **Save and Close**.

## Using Rules in Event Types: Examples

Rules in event types define the conditions under which changes to data are detected. Rules must be written using Groovy syntax. All attributes that you include as part of a rule must exist on the object for which the event type is built.

---

#### Note

There is no built-in syntax validation, so testing that the rule is working as designed is strongly recommended. You can test the rule and monitor the event publication or examine the log files.

---

### Comparing Attributes

Rule syntax for attribute names is case sensitive, so be sure to enter attributes correctly and enclose them in double quotation marks.

When referring to an object's old value, use the following syntax:

```
eo.Old("attrName")
```

When referring to an object's new value, use the following syntax:

```
eo.New("attrName")
```

### Using Operators

Operators in rule syntax are useful for creating the conditional criteria that you want an event to detect.

Operator	Usage
>	Greater than
<	Less than
= =	Equals
&	And

	Or
--	----

The following scenarios illustrate using operators with proper rule syntax:

### Detection Based on Object Status

This example shows the proper syntax for the event detection to occur only when the status for an object has a particular value, in this case, when the performance document approval status attribute (PerformanceDocApproveStatusUpdate) is changed to Submitted.

```
eo.New("StatusCode") == "SUBMITTED"
```

### Detection Only For Specific Object Type

This example shows the proper syntax for the event detection to occur only for a specific object type, in this case, only when the Phone Type attribute of the Phone entity object is Work Telephone.

```
eo.New("PhoneType") > "W" & eo.New("PhoneType") < "X"
```

PhoneType represents the lookup table, PHONE\_TYPE, which contains three lookup codes for work telephones: W1 W2, and W3. The rule above applies to phone types greater than W and less than X, the next letter of the alphabet, so that detection occurs for all phone types that begin with the letter W. This way, if you later add another lookup code for a fourth work telephone, W4 for example, the rule still applies correctly.

## Using Published Events and SOA Services with HCM Events: Highlights

Understanding how HCM events work with external processes requires some knowledge of service-oriented architecture (SOA). The following resources provide key information about using SOA services and how to create, publish, and subscribe to business events in your enterprise using Oracle SOA Suite and Oracle Enterprise Repository.

### SOA Services and Published Events

- For information about using SOA services and creating and publishing business events, refer to the following documents:  
See: Getting Started with Oracle SOA Suite  
See: Developer's Guide for Oracle SOA Suite
- For information about using Oracle Enterprise Repository to locate existing published events and services, refer to the following document:  
See: User's Guide for Oracle Enterprise Repository

## Purging Archived HCM Event Data: Worked Example

This example demonstrates how to purge object change data that was stored as a result of published event detection.

## Purging Archived Data by Date

1. From the Setup and Maintenance work area, search for Purge HCM Events Archive Data, and then click **Go to Task**.
2. In the Purge Date field, enter the date when you want the application to purge the archived HCM events data.

---

### Note

You cannot purge archived data that has not met or exceeded its storage duration. For example, if a particular event is defined to store data for 365 days, and you enter a purge date of 5 March 2012, only data that was archived for that event before 5 March 2011 will be purged.

---

3. Click **Submit**.

## FAQs for Define HCM Events

### When should I purge archived HCM events data?

Purge data from the tables that contain archived data for HCM events when a database administrator determines that the size of the tables is too big.

The archive tables to monitor for archived HCM events data are:

- HRC\_EVT\_OBJ\_CHANGES
- HRC\_EVT\_OBJ\_CHANGE\_COMPONENTS
- HRC\_EVT\_OBJ\_CHG\_ATTRIBUTES

## Manage Payroll Process Configuration

### Payroll Process Configuration Groups: Explained

Payroll process configuration groups provide sets of payroll action parameters, primarily related to logging and performance, for your processes and reports. When you run a process, you can select a process configuration group. If you do not select a process configuration group, the application uses the parameters in the default group.

You must specify the default group in the Process Configuration Group ACTION\_PARAMETER\_GROUPS profile option. You can set the profile option in the Setup and Maintenance work area using the Manage Default Process Configuration Group Profile Option Values task or the Manage Administrator Profile Values task.

---

### Note

Entering a value for this profile option is a required step. The value of the Payroll License parameter in the process configuration group selected in the profile option determines the element templates used in the Manage Elements task and

whether deduction cards are created automatically for new employees when you hire them.

A default process configuration group is predefined. You can edit the predefined group on the Default Group tab of the Manage Payroll Process Configuration page. You can select this group or another one as the default for your sites using the Process Configuration Group ACTION\_PARAMETER\_GROUPS profile option.

You can also create as many additional groups as you require on the Group Overrides tab on the Manage Process Configuration Group page. For example, you might want to create a group with the logging parameters turned on to troubleshoot processes. You can also specify different performance parameter values (such as chunk size and buffer size) for running different processes.

## Payroll Process Configuration Group Parameters

Payroll action parameters are system-level parameters that control aspects of the payroll batch processes. The effects of setting values for specific parameters may be system wide. Payroll batch processes read values from the PAY\_ACTION\_PARAMETERS table on startup, or provide appropriate values by default, if specific parameter values are not specified.

For some parameters you should understand the concept of array processing and how this affects performance. Values for each parameter are predefined with the system, but you can override these values as part of your initial implementation and for performance tuning. Use the Manage Payroll Process Configuration task in the Setup and Maintenance work area.

The following table describes action parameters and lists values and predefined default values:

Parameter	Description	Values	Default Value
Balance Buffer Size	Used for array inserts and updates of latest balances, based on one row per balance.	Maximum: 1000. Minimum: 1.  <b>Note</b>  If your trace files show differences between execute and fetch timings, look at the buffer sizes you are using. Try setting each of these to 100.	500
Shuffle Chunk Processing	Random processing of order chunks for assignment actions.	Yes, No	No
Chunk Size	Number of payroll relationship actions processed together.	Maximum: 16000. Minimum: 1.	20
Cost Buffer Size	Used for array insert and select statements when calculating the costing of the payroll run results.	Maximum: 1000. Minimum: 1.	500

Element Entry Buffer Size	Buffer size used in the initial array selects of element entries, element entry values, run results, and run result values per assignment.	Maximum: 1000. Minimum: 1.	500
---------------------------	--	-------------------------------	-----

Formula Execution Logging	Code area where logging is performed.	<p>The action parameter mechanism is only available for formula logging in the Payroll run. It is possible to perform logging with a combinations of characters. For example, the 'di' string corresponds to the logging of database item cache access and formula input and output values.</p> <hr/> <p><b>Note</b></p> <p>The dump logging options should only be used in rare circumstances, especially the T trace option, which generates very large amounts of data that would significantly slow down processing.</p> <hr/> <p>d = database item cache access</p> <p>D = database item cache dump</p> <p>f = formula cache access</p> <p>F = formula cache dump</p> <p>i = formula input/output values</p> <p>w = working storage area access</p> <p>W = working storage area dump</p> <p>n = nested calls</p> <p>c = change contexts</p> <p>s = SQL execution (database item and PLSQL formula function calls)</p> <p>m = miscellaneous</p> <p>T = trace (very large level that provides the inputs and outputs of every call made when executing a formula)</p> <p>1 = level 1 (combination of i, m, f, and C)</p> <p>2 = level 2 (combination of 1, d, w, c, and n)</p> <p>3 = level 3 (combination of 2, s, and T)</p>	No logging.
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Logging Area	Area where code logging can be performed.	The values correspond to c-code entries in the form PY_ENTRY (env, pyipppr); where pyipppr is the functional area that will have logging enabled.	<b>Note</b> If this isn't set, logging is not limited to a particular code area if logging is enabled by the Logging Category pay action parameter.
Assignment ID to End Logging	Assignment ID that ends logging.		All assignments
Assignment ID to Start Logging	Assignment ID that starts logging.		All assignments
Logging Category	Helps investigate problems with large volumes of detailed data.	GMPE or blank for no logging. You can specify multiple values.	No logging.
Maximum Number of Payroll Relationship Actions to Roll Back	Number of payroll relationship actions that can be rolled back, when rolling back a process.	Minimum: 1	50
Maximum Errors Allowed	Number of payroll relationship actions that can be rolled back, when rolling back a process.	Minimum: 0	CHUNK_SIZE or 20
Maximum Iterations Allowed per Run Action	Maximum number of iterations allowed per run action within Net to Gross calculations within the Payroll Run.	Minimum: 0	15
Notifications Expiration Offset	Number of days before a payroll flow notification is automatically deleted.		
Payroll License	Provides features, such as element templates, appropriate to selected product license.	PAYROLL, HR_ONLY, and PAYROLL_INTERFACE.	HR_ONLY
Process Timeout	Number of minutes before the Run Balance Generation process times out.	Minimum: 0	If not specified, no timeout limit is enforced.
Remove Report Assignment Actions	Removes report processing actions after reports are generated.	Yes, No	Yes
Run Result Buffer Size	Used for array inserts and updates, based on 1 row for each payroll run result.	Maximum: 1000. Minimum: 1.	500
Override Location for Tax Libraries	Directory location for Quantum tax libraries.	There are no set values. Values for this parameter would be directory structures on the client site.	\$VERTEX_TOP/lib

Accounting Date for Transfer to General Ledger	Date earned or date paid, used to transfer and post journal entries for costing results to Oracle Fusion General Ledger.	E = date earned P = date paid	P
Reversal and Balance Adjustment Accounting Date	Accounting date based on the process date of reversal or balance adjustment or the process end date of the Transfer to Subledger Accounting task, which is used to transfer journal entries for costing results to Oracle Fusion General Ledger.	T = transfer using end date of the Transfer to Subledger Accounting task as the accounting date  P = use process date of the reversal or balance adjustment as the accounting date	P
Threads	Total number of subprocesses that can run from the Oracle Enterprise Scheduler Service.	Minimum: 1.	1
Wage Basis Rules Buffer Size	Used in array selects from the PAY_TAXABILITY_RULES table within the Payroll Calculation process.	Minimum: 100	500
Trace	Enables the database trace facility for application processes written in C only.	Yes, No	No
Trace Level	Sets the trace level of the trace event. To generate the finest level of detail, enter the highest value.	1, 4, 8, 12	None
User Messaging	Enables detailed logging of user-readable information to the PAY_MESSAGE_LINES table.	Yes, No	No

### ***Parallel Processing Parameters***

#### **THREADS**

Oracle Fusion Global Payroll is designed to take advantage of multiprocessor machines. This means that you can improve performance of your batch processes by splitting the processing into a number of threads, or subprocesses, which run in parallel.

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#### **Note**

Using threads and subprocesses may also improve performance if you are using PAYROLL\_INTERFACE.

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When you submit a batch process, the THREADS parameter determines the total number of subprocesses that run concurrently. The process submits THREADS minus 1 subprocesses.

Set this parameter to the value that provides optimal performance on your server. The default value of 1 is set for a single-processor machine. Benchmark

tests on multiprocessor machines show that the optimal value is approximately 2 processes per processor. So, for example, if the server has 6 processors, you should set the initial value to 12 and test the impact on performance of variations on this value.

#### **CHUNK\_SIZE**

Size of each commit unit for the batch process. This parameter determines the number of assignment actions that are inserted during the initial phase of processing and the number of assignment actions that are processed at one time during the main processing phase. Parameter values range from 1 to 16,000. The default value is 20.

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#### **Note**

This does not apply to all processes, such as Generate Check Payments and Retroactive Pay.

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During the initial phase of processing, this parameter defines the array size for insert. Large chunk size values are not desirable and the default value has been set as a result of benchmark tests. Each thread processes one chunk at a time.

#### ***Logging Parameters***

During implementation and testing, you may need to turn on logging to provide a large volume of detailed information that is useful for investigating problems. Use this parameter only when you need to investigate problems that are not easily identified in other ways. The logging activities can impact the overall performance of the process you are logging. Usually, this feature is needed during your initial implementation and testing before you go live. In a normal operation you should disable detailed logging.

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#### **Note**

If you need to contact Oracle Support for assistance in identifying or resolving problems in running your payroll processes, you should prepare your log file first. Define the logging category, area, and range of assignments before resubmitting the problem.

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#### **LOGGING**

Logging categories define the type of information included in the log. You can set any number of these categories by specifying multiple values so you can focus attention on specific areas that you think may be causing a problem. Parameter values are one or more logging categories, as described below. The default value is No logging.

The following table explains each logging category:

Parameter Value	Logging Category	Description
B	Balance Information.	Provides output information that shows the creation and maintenance of balances used during payroll processing.
C	C cache structures information.	Provides output information that shows details of the payroll cache structures and changes to the entries within the structure. While working on a service request, Oracle may ask you to use this parameter to gather additional information.

E	Element entry information.	Provides output information that shows the state of the element entries in the process memory after the entries have been retrieved from the database. The information is provided whenever data for an entry is changed during processing.
F	Formula information.	Provides output information that shows details of formula execution, including formula contexts, inputs, and outputs.
G	General logging information.	Provides general information, rather than a specific information type. This parameter does not provide sorted output. In general, it is recommended that you choose parameters that provide specific types of information.
I	Balance output information.	Provides output information that shows details of values written to the database from the balance buffers.
L	Balance fetching information.	Provides output information that shows the balances retrieved from the database and whether or not the process will use those balances. (If balances such as Year To Date totals have expired because the year has changed, the process resets them and uses the new balance.)
M	Entry or exit routing information.	Provides output information to show when any function is entered and exited. The system may display messages such as In: pyippee and Out: pyippee. This information is indented to show the call level, and can be used to trace the path taken through the code at the function call level. Often, this information is useful when attempting to track down a problem such as a core dump.

P	Performance information	Provides output information to show the number of times certain operations take place at the assignment and run levels and why the operation took place. This parameter is often used to balance the buffer array write operation.
Q	C cache query information.	Provides output information that shows the queries being performed on the payroll cache structures. While working on a service request, Oracle may ask you to use this parameter to gather additional information.
R	Run results information.	Provides output information that shows details of run results and run result values just as they are about to be written to the database from the Run Results buffer or the Values buffer. This enables verification that the buffer contents were correct.
S	C cache ending status information.	Provides output information that shows the state of the payroll cache before the process exits, whether that process ends with success or an error. While working on a service request, Oracle may ask you to use this parameter to gather additional information.

T and Z	PL/SQL detail and PL/SQL output.	To obtain detailed information about the PL/SQL calls made by the Payroll application, use the combination of the T parameter and the Z parameter. This combination is typically useful for obtaining information about payroll processes that use a large amount of PL/SQL code, such as prepayments and archive. The output from using these parameters is buffered while the process is running and is placed at the end of the log file after processing is complete. Each payroll process instance has its own log file, located under the log subdirectory for the particular process ID.
V (USA and Canada only)	Vertex tax calculation information.	Provides output information that shows the values being passed in and out of a third-party Vertex tax engine. This parameter also provides a separate file in the Out directory that shows the internal settings of the Vertex engine. This logging option is available to customers in the USA and Canada only.

## Payroll License Configuration: Critical Choices

The Payroll License parameter on the Manage Payroll Process Configuration page has three allowable values that determine how payroll-related features function within Oracle Fusion Applications. You must ensure that the value for the Payroll License parameter in your default configuration group is appropriate for your licensing agreement.

The three allowable values for the Payroll License parameter for the following product licenses are:

- Oracle Fusion Global Payroll: `PAYROLL`
- Oracle Fusion Global Payroll Interface: `PAYROLL_INTERFACE`
- Other HCM Products: `HR_ONLY`

### Global Payroll

Global Payroll customers must set the Payroll License parameter to `PAYROLL` to ensure the complete set of payroll-related element templates is available

when creating elements. These element templates assist in element creation and automatically create and generate fast formulas for new elements. Elements created without this set of element templates will not be suitable for costing or payment processing in Global Payroll.

The PAYROLL license setting also prevents any organization payment methods without a payment source from being associated when creating payroll definitions, which reduces potential problems during payment processing. For some localizations, the PAYROLL license setting enables deduction cards to be automatically generated as part of the new-hire process.

### **Global Payroll Interface**

Global Payroll Interface customers must set the Payroll License parameter to PAYROLL\_INTERFACE to ensure the correct set of element templates is available. Earnings elements created without this license setting will not automatically generate the associated features, such as the formulas and balances required when calculating gross earnings for employees.

### **Other HCM Products**

Customers of other HCM products must set the Payroll License parameter to HR\_ONLY to ensure the correct set of element templates is available. These element templates are simplified to facilitate creating elements to capture just the required information. Elements created without this license setting will include formulas and balances, which are required for payroll purposes but are unnecessary for HR purposes.





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## Common HCM Configuration: Define Extracts

### Defining an Extract: Worked Example

This example demonstrates the steps required to create an extract definition. Before you create an extract definition, you should understand the following details: the information that you want to extract; the structure in which the data must be extracted and how you want to deliver this data (including file format, delivery mechanism and frequency information).

FAST bank is a global organization with subsidiaries all over the world. As part of an external business reporting requirement, FAST bank is required to extract the department and employee details (grouped by department) across the entire company. This information must be sent to a third party in an XML file and to HR Managers in a PDF file using e-mail.

The following table summarizes the key decisions in this scenario:

Decisions to Consider	In This Example
How many extracts do I need to create to produce this type of report?	You create one extract definition to define a headcount report.
What type of extract do I create?	You create a HR Archive extract.
How many blocks do I need to create?	In this example there are 2 functional groups of information, therefore you create two blocks, one for department and one for employees.
How many records do I need to create?	<p>You decide the number of records based on the sub-group of data elements within a block. In this example, you create two records for the department block:</p> <ul style="list-style-type: none"><li>• Department Details</li><li>• Department Summary</li></ul> <p>You create one record for the employees block: Employee Details.</p>

<p>How many data elements do I need to create?</p>	<p>You decide the number of data elements based on the specific information required for that report. In this example, create the following data elements for the Department Details record:</p> <ul style="list-style-type: none"> <li>• Department Name</li> <li>• Department Location</li> </ul> <p>For the Department Summary record, create the following data elements:</p> <ul style="list-style-type: none"> <li>• Record Code</li> <li>• Report Date</li> <li>• Employee Count</li> </ul> <p>For the Employees Details record, create the following data elements:</p> <ul style="list-style-type: none"> <li>• Full Name</li> <li>• Gender</li> <li>• Date of Birth</li> <li>• Salary</li> <li>• Bonus</li> <li>• Tax Rate</li> </ul>
<p>Do I need to create any fast formulas?</p>	<p>You can use fast formulas at the following levels:</p> <ul style="list-style-type: none"> <li>• Extract Criteria level to determine certain conditions.</li> <li>• Extract Rule level to derive data element values.</li> <li>• Extract Advanced Condition level to specify complex conditions.</li> <li>• Extract Record level to automatically generate formulas when you use the Generate Formula option.</li> </ul>

## Creating an Extract Definition

1. On the Manage HCM Extract Definitions page click on the Create icon to create a new extract.
2. Enter 01-Jan-2000 as the Session Effective Date.

The session effective date is an effective start date that applies to all date-effective interactions in the current session.

3. Enter FAST Bank Extract as the name and select HR Archive as the type. The application automatically creates the tag name based on the extract name and uses this name to generate the XML output file.

4. Click Save and the application saves the extract definition and automatically generates the parameters based on the type of extract. The parameters control the output of an extract. In this example, the application creates the following parameters:
  - Effective Date
  - Legislative Block
  - Parameter Group
  - Report Category
  - Request ID
  - Start Date

## Creating Extract Blocks

1. Select the Extract Block link from the navigation tree to open the Extract Blocks region.
2. Click on Create to define a new block. A block represents data that belongs to one or more logical data entities.
3. Complete the general fields, as shown in this table:

Field Name	Entry
Name	Departments
User Entity	PER_EXT_SEC_ORGANIZATION_UE
Root Block	Yes (By selecting this checkbox you select this block as the starting point for the extract execution.)

4. Select Save and Create Another to create a block for Employees.
5. Complete the general fields, as shown in this table:

Field Name	Entry
Name	Employees
User Entity	PER_EXT_SEC_ASSIGNMENT_UE
Root Block	No

## Creating Extract Block Links

1. Select Extract Block in the navigation tree to display the blocks in a table. Block links enable you to define the master-detail of parent-child relationship between the entities. For example, the Employees and Departments blocks are linked with Department ID.
2. Select the Employees Block and define the block link details.
3. Complete the general fields, as shown in this table:

Field Name	Entry
Parent Block	Departments
Parent Block Database Item	PER_EXT_ORG_ORGANIZATION_ID
Block Database Item	PER_EXT_ASG_ORG_ID

4. Define the block criteria for each block. Block criteria enables you to specify the filter conditions of what data you want to archive. You can specify the filter conditions as an expression or fast formula.

## Creating Extract Records

1. Select the Departments Block from the navigation tree and select the Create icon in the Extract Records region. Extract records represent a physical collection of all required fields. If a block has 3 records, then you can specify the sequence in which the application processes the records using the sequence field. You can also select the Next Block to identify which block the application processes next.
2. Create two records for the Departments Block.
3. Complete the general fields, as shown in this table:

Field	Department Summary	Department Details
Name	Department Summary	Department Details
Effective Start Date	1/1/00	1/1/00
Sequence	20	10
Type	Trailer Record	Header Record
Process Type	Fast Formula	Fast Formula
Next Block	NA	Employees

4. Save the records, then select the Employees Block and select the Create icon in the Extract Records region.
5. Create one record for the Employees Block.
6. Complete the general fields, as shown in this table:

Field Name	Entry
Name	Employee Details
Effective Start Date	1/1/00
Sequence	10
Type	Detail Record
Process Type	Fast Formula

## Creating Data Elements

1. Select the Departments Block from the navigation tree and select the Department Details record.

An extract data element is an individual field of a record.

2. Create the following extract data elements for the Department Details record and select Save.
3. Complete the general fields, as shown in this table:

Field Name	Data Element Entry	Data Element Entry
Name	Department Name	Department Location
Type	Database item group	Database item group
Database Item Group	Organization Name	Organization Location Country

4. Save the record, then select the Department Summary record.
5. Select the Create icon in the Extract Data Elements region.
6. Create the following extract data elements for the Department Summary record and select Save.
7. Complete the general fields, as shown in this table:

Field Name	Data Element Entry	Data Element Entry	Data Element Entry
Name	Record Code	Report Date	Employee Count
Data Type	Text	Date	Number
Type	String	Parameter Element	Summary Element
String Value	999	NA	NA
Parameter	Effective Date	NA	NA
Aggregate Function	NA	NA	Count
Aggregate Record Name	NA	NA	Employees Employee Details

8. Select the Employees Block from the navigation tree and select the Employee Details record.
9. Create the following extract data elements for the Employee Details record and select Save.
10. Complete the general fields, as shown in this table:

Field Name	Data Element Entry	Data Element Entry	Data Element Entry
Name	Full Name	Gender	Date of Birth
Start Date	1/1/00	1/1/00	1/1/00
Data Type	Text	Text	Date

Type	Database Item Group	Decoded database item group	Database item group
Database Item Group	Person Full Name	Person Gender	Person Date of Birth

Field Name	Data Element Entry	Data Element Entry	Data Element Entry
Name	Salary	Bonus	Tax rate
Start Date	1/1/00	1/1/00	1/1/00
Data Type	Number	Number	Text
Type	Database item group	Record Calculation	Rule
Database Item Group	Assignment Salary Amount	NA	NA
Calculation Expression	NA	Salary * 0.5	NA
Rule	NA	NA	FAST Bank Tax Rule

## Defining the Delivery Options

1. Navigate to the Extract Execution Tree to validate the extract definition setup.
2. Select Export XSD to download the XML Schema Definition (.xsd) file for this extract setup. This exported file contains the structure of the extract definition: the blocks, records, and data elements.
3. Select the Extract Delivery Options region to define the formatting and layout options for the extract definition.

You can define delivery options for an extract using a BI publisher template, with the following delivery file output types: PDF, XLS, XML, DOC, and the following delivery modes FTP, email, fax. You can also choose Documents of Record as the delivery mode. This delivery mode enables you to store the output in the database and allows employees to view online payslips from documents of record. If the XML output is split and burst as separate files, then you can select the bursting node. For example, if you want all employees to be sent an email with their payslip, then set the bursting node to Employee\_ID.

4. Complete the general fields, as shown in this table:

Field	Value	Value
Start Date	1/1/00	1/1/00
End Date	12/31/12	12/31/12
BI Publisher Template	ReportLayout	EFTLayout

Output Type	PDF	EFT
Delivery Type	Email	FTP
Delivery Option Name	Email to HR	FTP to 3rd Party
Output Name	HeadcountReport	EFTReport

5. Define further information for each delivery option in the Additional Details region. For example, add the server, username and password for the FTP delivery type.
6. Enter FAST Bank Extract as the reporting category and click Submit.

## Submitting an Extract

An extract definition automatically creates an extract process with the same name as the extract. The extract process enables you to define an execution sequence of multiple tasks, including pre and post tasks. You can use the Refine HCM Extracts task to view and modify the extract process, if required.

1. Select the Submit an HCM Process task and select the FAST Bank Extract process.
2. Enter FAST Bank Extract - Jan 2012 as the Payroll Flow.
3. Enter 1/1/12 as the Effective Date.
4. Select Next. You can specify interaction details if the task is dependent on other tasks with different extract processes. For example, this task must wait because another task is running.
5. Select Next and review the extract.
6. Select Submit.
7. Select OK and View Checklist to view the status of the process.
8. Select the View an HCM Process task to review the results of the extract run. Search for the FAST Bank Extract process.
9. Select Go to Task for FAST Bank Extract - Jan 2012 and view the report output.

## Extract Components: How They Work Together

The HCM Extracts feature is a flexible tool for generating data files and reports. You use the extract components to define what information you want the application to extract and report on, and how the information is displayed, formatted and delivered. An extract definition consists of: one or more extract blocks, depending on how many logical entities you want to extract; one or more extract records depending on how many groups of information you want to collect; and one or more data elements depending on how many individual fields of data you want to extract.

### Extract Definitions

An extract definition refers to the complete setup of an extract, that consists of extract blocks, criteria, records, data elements, advance conditions and output

delivery options. You use HCM extracts to extract, archive, transform, report, and deliver high volumes of HCM data from the Fusion HCM database. You can view the extracted data in the UI before generating the final output. You can generate the output in the following formats:

- CSV
- XML
- Excel
- HTML
- RTF
- PDF

You can distribute the extracted information by email, fax and other delivery modes. Some common examples of extracts are: PDF payslips delivered to employees' mailboxes, payroll or benefits data transferred to third-party service providers, HR and talent data exchange between Fusion and legacy applications, for example in a coexistence scenario.

## **Blocks**

Extract blocks represent a business area or logical entity, for example person, assignment, or benefits. The application uses this information to retrieve the report data items. You define one block as the primary or root block and this block is the starting point of the data extraction.

Extract block links capture the association details between the current block and the parent block. The block links form the hierarchical relationship among the blocks.

Extract block criteria enables you to define a set of filtering conditions the application must perform on an extract block. You specify the criteria conditions using an expression or fast formula.

## **Extract Records**

Extract records represent a grouping of related data or a physical collection of all fields required in the extract. For example, the Employee block can have records such as Basic Details, Pay Details, Location Details, and Primary Contact. An extract record is a collection of data elements which you can organize in a required sequence. For example, if a block has 3 records, then you can specify the sequence in which the application processes the records. You can also select the next block to identify which block the application processes next.

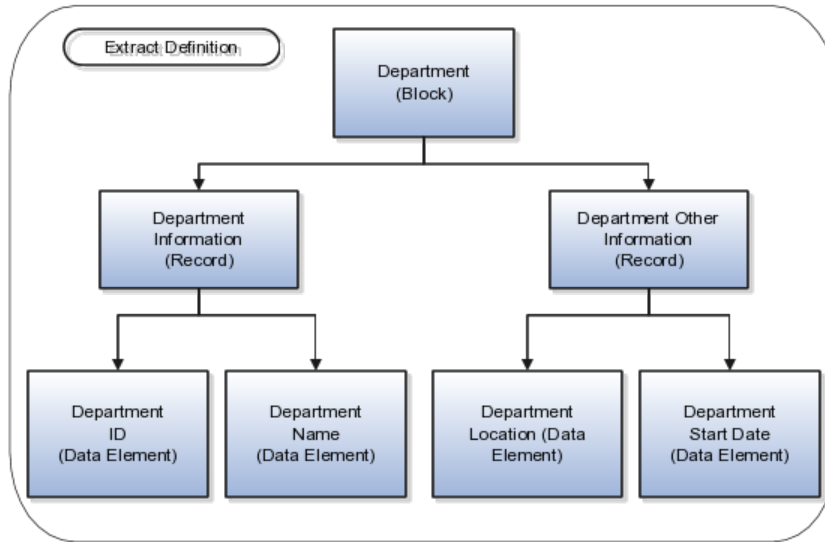
## **Data Elements**

Data elements are the individual fields inside the extract record. A data element is the lowest attribute level of a HCM extract and represents a piece of information, for example, person first name, person last name or person date of birth.

This figure demonstrates the hierarchy of information within a block definition. In this example, the block is a container for the logical group of data called



Department. Within the Department block there are two records of department data called Department Information and Department Other Information (extract records). Within the subgroup of Department Information there are two elements of information called Department ID and Department Name. Within the subgroup of Department Other Information there are two elements of information called Department Location and Department Start Date. An extract definition is a hierarchy of information with data elements such as Department ID at the bottom.



## FAQs for Define Extracts

### How can I restrict the records to be extracted?

You can use extract block criteria to define a set of filtering conditions the application performs on an extract block. For example, you can use database items in the fast formula to represent the `town_or_city` and `primary_flag` columns in the `per_addresses` table to restrict the data to people living in London only. The extract definition would then exclude people with a primary address of anywhere other than London. You can specify the criteria conditions using an expression or fast formula.



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## Common HCM Configuration: Set Up Banks, Branches, and Accounts

### Entering Bank Information for Personal Payment Methods: Critical Choices

Bank, branch, and bank account information is shared across multiple applications. For example, if you add an employee's bank details for expense payment, the same bank details are available for managing electronic funds transfer (EFT) payment details for that employee. Who enters bank information depends on how security is configured at your site.

The configuration choices are:

- Enter bank information centrally
- Enter bank information on the Manage Personal Payment Methods page

#### Entering Bank Information Centrally

By default, only cash managers can enter banks and branches. They use the Set Up Bank, Branches, and Accounts task list in the Setup and Maintenance work area.

A web service is also available to migrate personal payment method information, including employee bank account details, from external sources.

#### Entering Bank Information on the Manage Personal Payment Methods Page

By default, on the Manage Personal Payment Methods page, employees can enter their own bank account details for existing banks and branches, but they cannot create new banks and branches. Similarly payroll managers, payroll administrators, and payroll coordinators can enter account details for the employees they handle, but they cannot create new banks and branches. If you want to enable the create option for any of these roles, you must add the Bank and Branch Management duty role to the relevant role.

It is not possible to edit bank and branch details on the Manage Personal Payment Methods page. You must use the Set Up Bank, Branches, and Accounts task list to edit existing banks and branches.

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#### Important

If you enable employees or other roles to create banks and branches, provide guidance to use unique names and follow appropriate naming conventions.

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## Payroll Setup for Banks and Cash Management: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Cash Management, which facilitates the setup of banks, branches, and bank accounts, and the reconciliation of bank statements with payment transactions.

A manager with the appropriate duty role, usually a Cash Management cash manager, creates the following information in the Setup and Maintenance area.

- Banks, bank branches, and bank accounts for the payment sources used to issue payments
- Transaction codes used in bank statements that you map to transaction codes that you set up for payment methods
- Reconciliation Differences account and reconciliation rules, to support reconciliation of your payments with bank statements

### Set Up Banks

Before you can set up banks, you must complete the tasks for payroll and Financials to set up a chart of accounts and ledger. This information is then used to set up banks. For example, when creating a bank for a payment source, you select a legal entity assigned to a ledger for the associated legislative data group.

Complete the following tasks to create banks for your payment sources.

Task	Action
Manage Banks	Create the bank information required for the payment sources used in your payroll transactions.
Manage Bank Branches	Create the bank branch information required for the payment sources used in your payroll transactions.
Manage Bank Accounts	Create the bank account information required for the payment sources used in your payroll transactions.

### Set Up Payroll Transactions Codes

If you cost your payments, complete the following tasks to set up and map transaction codes in Cash Management for the organization payment methods.

Task	Action
Manage Bank Statement Transaction Codes	Create transaction codes for the transaction types that support your organization payment methods. When creating the codes, refer to the transaction and statement codes that your enterprise currently uses.
Manage Cash Transaction Type Mapping	Map transaction types to payment types used for the organization payment methods that support costing of payments. Identify the organization payment methods for payroll accounts, such as payroll liability, cash, and cash clearing accounts.

## Set Up Accounts and Rules for Reconciliation

Payroll processes transfer your payment entries to Cash Management for manual or automatic reconciliation with bank statements, and cost the unreconciled and reconciled payments to the appropriate account, such as the cash clearing and cash accounts. A reconciliation difference account records discrepancies, such as over or under payments.

If you automatically reconcile payment transactions, complete the following tasks to set up tolerance and reconciliation rules in Cash Management. For manual reconciliation, you make decisions during the reconciliation process when matching bank statement lines and system transactions.

Task	Action
Manage Bank Statement Reconciliation Tolerance Rules	Create tolerance rules based on date, amount, or percentage that prevent or warn you when reconciliation exceeds a defined tolerance.
Manage Bank Statement Reconciliation Matching Rules	Define bank statement automatic reconciliation matching rules.
Manage Bank Statement Reconciliation Rule Sets	Assign a group of matching rules and tolerance rules to a bank account for reconciling bank statement lines with transactions.
Manage Bank Accounts	Specify the Reconciliation Differences account you set up in Oracle Fusion General Ledger to use for storing discrepancies that exceed the tolerance rules in the payment amounts reported in the bank statements.



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## Common HCM Configuration: Manage Tablet Application Configuration

### Oracle Fusion Tap: Highlights

Oracle Fusion Tap enables you to use a tablet device to complete day-to-day sales and human resources tasks, and review key business information.

For example, HR professionals can use Oracle Fusion Tap to:

- Monitor business critical performance indicators, receive alerts, and drill down to details accessed through integration with real-time business intelligence
- Compare workers, no matter where they are in the organization, by simply tapping on them in the interactive organizational chart
- Obtain a true view of workers by blending human resource information with job specific information
- Export a peer, their peers, and their direct reports with a single tap on a contact list

Sales managers and executives can use Oracle Fusion Tap to view key performance indicators and obtain an accurate view about how the business is performing. Salespeople can also:

- Access contacts, accounts and opportunities when out of the office
- Identify key contacts and collaborate with sales co-workers
- Browse interactive sales catalogs to discover, present, and compare products
- Log sales activities and notes quickly and easily

#### Oracle Fusion Tap Capabilities and Installation

- End users can learn about Oracle Fusion Tap capabilities and installation. See: Oracle Fusion Tap Capabilities and Installation document (1430761.1) on My Oracle Support at <https://support.oracle.com>

#### Extensibility

- Administrators can learn how to configure the different page displays for opportunities on tablet devices. See: Oracle Fusion Tap Extensibility (1430783.1) on My Oracle Support at <https://support.oracle.com>

### **See Also**

- You can view more details about extensibility options and capabilities across all Oracle Fusion applications.

See: Oracle Fusion Applications Extensibility Guide

- You can access more implementation information for Workforce Deployment.

See: Oracle Fusion Applications Workforce Deployment Implementation Guide

- You can access more Sales implementation information.

See: Oracle Fusion Applications Sales Implementation Guide



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## Define Payroll Legislations

### Payroll Legislative Data: Explained

Use the Configure New Payroll Legislation task to create payroll rules for legislations not initially provided by Oracle. It guides you through the process of configuring the various payroll objects needed for you to successfully run a payroll process in your legislation.

Payroll objects you configure include:

- Legislative rules
- Primary element classifications
- Valid payment types
- Deduction groups
- Balance dimensions
- Legislative data groups

#### Legislative Rules

These rules include how the employee records are managed when that person is rehired into your organization and the starting month of your legislation's tax year. For some localizations, a rehire continues to be associated with the earlier payroll relationship, thereby having access to prior data, such as all year-to-date balances. For other localizations, a rehire creates a new payroll relationship record with no access to prior data. Statutory rules within your localization would determine the selection you make here.

#### Primary Element Classifications

Element classifications are collections of related elements. For your legislation, you select the primary classifications that include the elements you need for payroll processing. Once selected, you can then provide new names for them to match whatever terminology is most appropriate.

#### Valid Payment Types

Payment types are the means by which payments are issued to your workers. For your legislation, select the supported payment methods and provide new names for them as appropriate.

## **Deduction Groups**

Deduction groups are logical sets of deduction types, elements, and calculation rules. A legislation may require them for the calculation of certain types of deductions, such federal, social insurance, taxes, or involuntary deductions. For your legislation, select the supported deduction groups and provide new names for them as appropriate.

The Configure New Payroll Legislation flow creates a sample deduction card for your localization. The Deduction Card creates the deduction components for the deduction groups you selected. The element template then associates these components with the statutory deduction elements you create. These deduction components must be associated with your employees for that particular deduction to be processed.

## **Balance Dimensions**

Balance dimensions identify the specific value of a balance at a particular point in time, based on a combination of criteria, including time, employee relationship level, jurisdiction, payroll run, and tax reporting unit. For your legislation, select the supported balance dimensions and provide new names for them as appropriate. The Configure New Payroll Legislation task creates some predefined balances that are used within the Statement of Earnings, such as Gross Earnings and Net Pay. Additionally, the Net Pay balance is required to setup Organization Payment Method.

## **Legislative Data Groups**

A legislative data group must be defined for your new legislation, either before completing this task or afterwards. Access this through the Manage Legislative Data Groups task.

---

## Define Payroll

### Payroll Relationships: Explained

A payroll relationship exists between a person and a payroll statutory unit, which is the legal entity responsible for employee payment. Payroll relationships group person records based on payroll regulatory and statutory calculation and reporting requirements. This grouping enables the aggregation of balances across multiple employment terms and assignment records.

Important aspects of payroll relationships include:

- Creation of payroll relationship records
- Multilevel aggregation for payroll calculation
- Payroll employment model

#### Creation of Payroll Relationship Records

When an HR administrator processes a new hire, the application automatically creates a payroll relationship record for that person. As an administrator adds employment terms or assignments for that person, the application uses several factors, such as system person type, payroll statutory unit, and country-specific relationship mapping rules, to determine whether to create a new payroll relationship record. Predefined mapping rules for payroll relationships also define the payroll relationship types that indicate whether payroll processing can occur. These predefined rules can vary by localization. For example, in the US, the Employee person type maps to the payroll relationship type that is defined to be processed in payroll runs, whereas the Contingent Worker person type maps to a payroll relationship type that is not be processed in payroll runs.

---

#### Note

There is no direct association between payroll relationships and work relationships.

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#### Multilevel Aggregation for Payroll Calculation

Payroll relationships represent the association between a person and the payroll statutory unit, which provides the highest level of aggregation for payroll calculation purposes. Payroll processing occurs at the payroll relationship level.

This means that to access the results of any payroll process, such as calculation or payment distribution, you start by selecting a payroll relationship record.

---

**Note**

Although a person may have multiple payroll relationships, payroll balances for that person cannot span payroll relationships.

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**Payroll Employment Model**

The payroll relationship structure provides the capability to have employment terms and assignments that can be linked together for calculations based on the payroll statutory unit. Therefore, information must be stored at the various levels of the payroll relationship model. This information is used by the various payroll processes.

Your enterprise might be defined to use two-tier and three-tier employment models. The three payroll employment levels are:

- Payroll relationship

The payroll relationship is the highest level for which to accumulate balances. Elements assigned at the payroll relationship level are processed in every payroll run. Payroll relationship elements are typically deduction elements, such as tax, pension, social insurance, or court orders.

Payroll relationships are also used outside of Oracle Fusion Global Payroll to facilitate the extraction of data from HCM that is sent to a third-party payroll provider for payroll processing. For example, payroll coordinators use Oracle Fusion Global Payroll Interface to extract benefits data from HCM and send that data through payroll relationships, along with payroll-related data.

- Employment terms (three-tier model only)

Employment terms are commonly used as a middle layer in the payroll employment model to help manage multiple assignments and to satisfy tax and reporting requirements at a lower level than the payroll statutory unit. Elements assigned at the employment terms level are typically salary, pension, or social insurance elements that vary based upon the employment terms.

---

**Note**

Employees with multiple terms or assignments that are paid on payrolls using different frequencies, such as Monthly and Semimonthly, must have different employment terms or assignments for each payroll. In a two-tier configuration, payrolls can be assigned to the assignment record; in a three-tier configuration, payrolls can be assigned to the terms record.

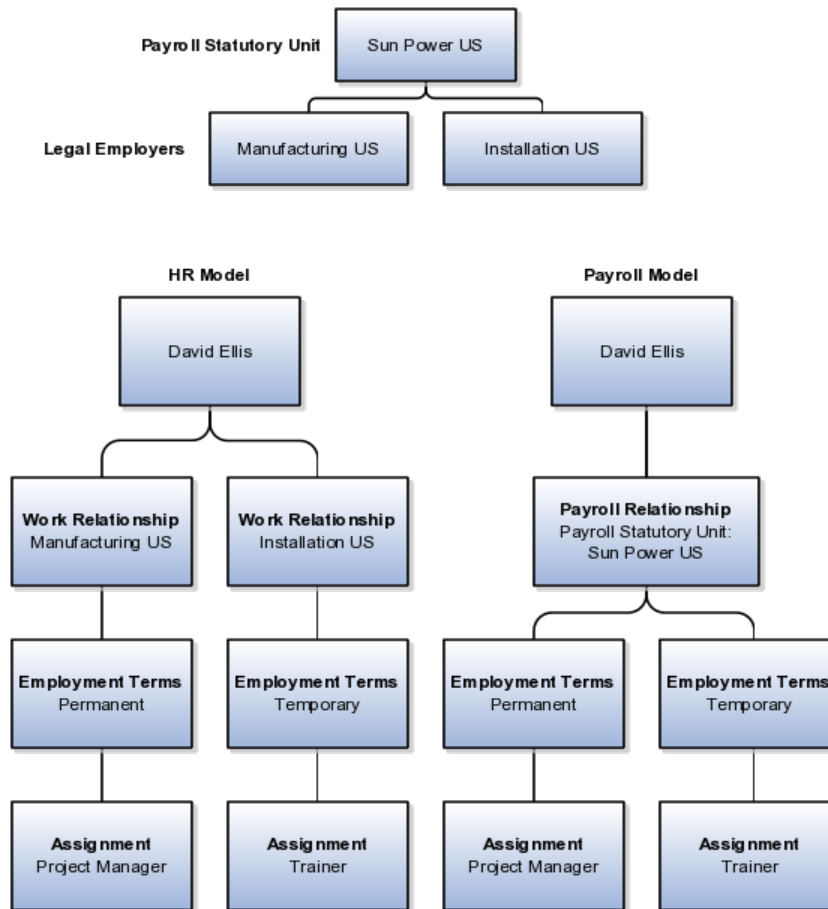
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- Assignment

Because the assignment is the lowest level of the payroll employment model, elements assigned at this usually level vary from one assignment to another or are specifically for a single assignment. Assignment

elements are typically used for monetary terms and conditions, such as overtime rules, rates, or bonuses.

The following figure illustrates the comparison between the HR employment model and the payroll employment model in a US example with two legal employers belonging to one payroll statutory unit. In this example, David Ellis has two different employment terms and assignments, and therefore has two work relationships in the HR employment model and one payroll relationship in the payroll employment model.



## Define Payroll Business Definitions

### Payroll Employment Hierarchy Profile Option: Critical Choices

You can use profile options to specify the values you want to display for each level of the payroll employment hierarchy. The hierarchy appears in View Person Process Results pages. It can display information for up to three levels, depending on the employment model used in your enterprise:

- Payroll relationship
- Employment terms
- Assignments

You can specify up to three values at each level to help identify the record. For example, you might select legal employer name and job name to identify employment terms records, and assignment name and number to identify assignment records.

### Which Values to Use for the Profile Option

The following table lists the profile option codes, available profile values, and default values at the site level for each level of the payroll employment hierarchy.

Level	Profile Option Codes	Profile Values
Payroll relationship	PAY_EMP_HIERARCHY_REL_DES	Payroll
	PAY_EMP_HIERARCHY_REL_DES	Relationship
	PAY_EMP_HIERARCHY_REL_DES	Number
		Payroll Statutory
		Unit Name
		Payroll Relationship Type
Employment terms	PAY_EMP_HIERARCHY_TERM_D	Employment Category
	PAY_EMP_HIERARCHY_TERM_D	Legal Employer Name
	PAY_EMP_HIERARCHY_TERM_D	Grade Name
		Job Name
		Position Name
		Payroll Name
		Location Name
Assignment	PAY_EMP_HIERARCHY_ASG_DE	Assignment Name
	PAY_EMP_HIERARCHY_ASG_DE	Assignment Number
	PAY_EMP_HIERARCHY_ASG_DE	Employment Category
		Grade Name
		Job Name
		Legal Employer Name
		Location Name
		Position Name

### Overriding Site-level Values with User-level Values

You can override site-level values at the user level. For example, you might use position as the default value and override it with job for the payroll administrator who manages records for a group of workers who are not assigned to positions.

# Define Pay Frequency

## Pay Frequency Components: How They Work Together

Pay frequency components together provide the flexibility to implement complex time-related objects used in payroll definitions, payroll processes, and payroll tasks that use start and end dates.

It is important to understand how the following pay frequency components work together to provide payroll functionality for your organization. Each may require its own setup and implementation.

- Consolidation Groups
- Payroll Definitions
- Time Definitions
- Run Types

### Consolidation Groups

Use consolidation groups to process the results from more than one payroll run in a single action or process the results for one payroll in separate actions. With consolidation groups, you produce one set of results per payment method for several payrolls, one set of reports, and one set of costing results. For example, you may submit a regular payroll run and a supplementary payroll run for the same payroll period. If both the regular and supplementary run belong to the same consolidation group, then you use a single consolidation group to process all the results for the post-run processing. Optionally, you can enter a different consolidation group for the supplementary payroll and use it to process the results of the post-run processing for the supplementary payroll separately from the regular payroll.

### Payroll Definitions

Payroll definitions are essential to your payroll implementation because they indicate the payment frequency and processing schedule, and through the payroll relationship, they link the employees with the payroll run.

### Time Definitions

Time definitions can be static periods of unusual length based on a given static date, or they can create dates based on dynamic variables that you specify for either a time span, a retrieval date, or a more complex definition type to use with a user-defined date. They are used in many areas, including payroll periods, payroll employment management, balance dimensions, retroactive and proration events, element start and end dates, and overtime periods.

### Run Types

Run types control the elements and payment types to process in a payroll run. Two predefined run types, Regular and Supplemental, group the other run types and determine the sequence in which they are processed. The Regular

run type includes Regular Normal, Process Separately, and Separate Payment. The Supplemental run type includes Process Separately, Separate Payment, and Supplemental Normal.

For each of the component run types, you can specify payment methods that override the default payment methods for the payroll definition. You can also select the element classifications to be processed by runs of this type, and exclude specific elements from these classifications.

## Consolidation Group Usage: Examples

You create consolidation groups by selecting the Manage Consolidation Groups task from the Payroll Calculation work area. The following scenarios provide examples of how you can use consolidation groups.

### Post-Run Processing

Consolidation groups facilitate separating payroll run results for supplemental processing. For most payroll post-run processing, you can use the consolidation group as an input parameter. You may want the results of a supplemental payroll run to be kept separately from those of the regular payroll process that was already performed. To use a consolidation group to keep supplemental run results separate from the regular payroll run, you would perform these steps:

1. Create a new consolidation group used to label the supplemental payroll run.
2. Initiate the supplemental payroll run, specifying the new consolidation group as an input parameter.

### Separate Costing and Payment

Using multiple consolidation groups you can control processing. For example, you want to process and pay a particular set of employees separately within a single payroll to keep separate records of payment and costing. To process employees separately, you would perform these steps:

1. Create a new consolidation group to specify when running the Calculate Payroll process.
2. Create a payroll relationship groups to separate the employees.  
You can use rules to identify them dynamically or you can specify the employees by their payroll relationship numbers.
3. Run the Calculate Payroll process for each payroll relationship group separately, once specifying the original consolidation and once for the new consolidation group.

### Supplemental Processing for Special Circumstances

You may want a supplemental payroll run for a special circumstance. For example, you have a main payroll run and three QuickPay runs. Because one of the QuickPay runs is for a termination, it needs to be processed prior to the others. To process the QuickPay for this special circumstance, you would perform these steps:

1. Create a new consolidation group to specify when you process the QuickPay for the termination.



2. Submit a QuickPay process, specifying the new consolidation group.
3. Process the other three payroll runs using their default consolidation groups.

## Payroll Definitions: Explained

Payroll definitions contain calendar and offset information, which determines when payments are calculated and costed. Using payroll definitions, you can specify payment frequency, processing schedule, and other parameters for a particular payroll. Payroll period types, such as weekly or monthly, determine the interval at which you pay employees.

Each payroll definition can use only one payroll period type, and you must set up at least one payroll definition for each payroll period type that you use to pay employees. For example, to pay employees semimonthly, create a payroll definition using the semimonthly payroll period type, ensuring that tax calculations and other calculations will produce correct results for those employees.

When you create a payroll definition, the complete payroll schedule is automatically generated, based on the payroll period type, any offsets or calendar adjustments, and the number of years that you specify. Once you have saved a payroll definition, you can assign employees to it on the Manage Payroll Relationships page.

A common scenario for modifying an existing payroll definition is to increase the number of years and generate more payroll time periods to extend the payroll calendar. A common scenario for creating a payroll definition is to replace one that is expired or end-dated.

Each payroll must belong to a consolidation group, which is required by the application for processing purposes. Before you can create a payroll definition, the legislative data group and the consolidation group to use for it must already be defined.

## Managing Payroll Definitions: Points to Consider

When you create or modify payroll definitions, the application automatically generates a calendar of payroll periods based on your selections. The choices you make for the following values determine exactly how the schedule of payroll periods is generated:

- Effective start date
- First period end date
- Number of years
- Offsets
- Changes to specific dates

### Effective Start Date

The effective start date is the first date that the payroll definition can be used for employee data. The start date must be on or before the earliest date of any

historical data you want to load. For example if you want a payroll to be in use starting on 1/1/2013, and you have 5 years of historical payroll data to load, then the start date of the payroll definition must be on or before 1/1/2008.

The effective start date does not affect the generated calendar of payroll periods. The start date for the first payroll period is based on the first period end date.

### First Period End Date

The first period end date is the end date of the first payroll period that the application generates for a payroll definition. It is typically based on the date of implementation, tax year, benefits enrollments, or a particular payment cycle. For example, if your weekly payroll work week is Saturday through Friday, and your first payment date is planned to be on 1/6/12, you could use 12/30/11 as your first period end date.

### Number of Years

The number of years you enter represents how many years of time periods to generate starting from the beginning of the first payroll period. For example, a payroll definition with an effective start date of 1/1/1985, a payroll period type of semimonthly, a first period end date of 6/15/2012, and the number of years as 5 would generate a calendar of payroll time periods from 6/1/2012 through 5/31/2017. Once you save a payroll definition, you can later only increase but not reduce its number of years because a calendar of time periods for the payroll has already been generated.

### Offsets

Depending on the payroll period type, you can elect for your payroll cycle events to occur on specific dates or be based on offsets from period start or end dates.

This table describes the predefined payroll cycle events that you can offset.

Date	Meaning
Cutoff Date	Final date that payroll information can be entered for the payroll period.
Payslip Availability Date	Date on which the payslip is available for viewing.
Payroll Run Date	Date scheduled for the regular run of this payroll.
Date Earned	Date on which element entries are added to the payroll run.
Date Paid	Date the employee is marked as paid. For check payments, this is the date that the check can be cashed or deposited. For electronic funds transfer (EFT) payments, it is the transfer date.

### Dynamic Offsets

When creating a payroll definition, you can use dynamic offsets for payroll cycle events. All of the predefined payroll time periods you can use support dynamically generated dates for offsets. Using dynamic offsets, you have the option to offset each payroll cycle event by a specified number of calendar or work days before or after the start date or the end date of the payroll period. For

example, you might want to set the payroll run date three work days before the payroll end date, which accommodates differences in the number of days in the payroll period and also accounts for weekends and holidays.

### Fixed-Date Offsets

The predefined Monthly (Calendar) payroll time period supports using both dynamic offsets and fixed-date offsets. Using fixed dates, you can adjust the exact date of each of the payroll cycle events for the first payroll period and any adjustments that you make will be reflected in the payroll calendar for subsequent payroll time periods. For example, you might set the cutoff date as the 25th of the month and the payroll run date as the 26th of the month, then all payroll periods in the calendar will have those offsets.

### Specific Date Adjustments

Once you have generated the payroll time periods, you can further adjust any specific calendar dates, as desired. For example, if you know of a particular bank holiday that falls on a payroll run date or a payment date, you might want to adjust the dates manually on the payroll calendar's time period. You can make these adjustments when creating a payroll definition or any time after then, as long as the time period is in the future.

## Creating Payroll Definitions: Worked Example

This example demonstrates how to create two payroll definitions for different payment frequencies that are associated with one consolidation group and one legislative data group.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
Which consolidation group should be used?	User-defined consolidation group: InFusion US Emp Group
What is the legislative data group for the consolidation group?	User-defined legislative group: InFusion US LDG
What are the payroll periods to use?	Predefined payroll period types: Semimonthly Monthly (Calendar)
What are the names of the new payroll definitions?	InFusion US Emp Semimonthly InFusion US Emp Monthly
What is the name of the organization payment method to use for all employees?	User-defined payment methods: InFusion US Emp Check Infusion US Emp EFT

In this example, the InFusion US company is creating payrolls for its employees. There are two sets of employees, permanent employees who are paid a set

amount on a semimonthly basis, and temporary employees that are paid using time card data on a monthly basis.

The business requires that a single monthly costing process be run against results from different payroll runs by using the consolidation group name as an input parameter in the costing run. This example creates two payroll definitions with different payment periods, but the same consolidation group. Both definitions are effective starting on 1/1/11 and will generate payroll time periods covering 5 years.

## Prerequisites

1. Ensure that the legislative data group for your payrolls exists, such as InFusion US LDG.
2. Ensure that organization payment methods exist for your payrolls, such as InFusion US Emp Check and InFusion US Emp EFT.
3. Create a consolidation group named InFusion US Emp Group assigned to the InFusion US LDG legislative data group.

## Create the Payroll Definitions

Create two payroll definitions:

- One for permanent employees that are paid a flat amount by electronic funds transfer (EFT) on a semimonthly basis. This payroll definition includes dynamically generated offset dates.
- One for temporary employees that are paid by check using time card data on a monthly calendar basis.

Perform the following steps twice, first using the semimonthly values and then using the monthly values.

1. In the Payroll Calculation work area, click **Manage Payroll Definitions**.
2. In the Search Results section of the Manage Payroll Definitions page, click the **Create** icon.
3. Select the InFusion US LDG legislative data group from the list.
4. Enter 1/1/11 as the effective start date you want the payroll to be available for use, and then click **Continue**.

In this example, all employees that will use this payroll definition are hired after 1/1/11, so there is no issue with loading historical employee data.

5. In the Basic Details section, complete the fields as shown in this table, and then click **Next**.

Field	Semimonthly Value	Monthly Value
Name	InFusion US Emp Semimonthly	InFusion US Emp Monthly
Consolidation Group	InFusion US Emp Group	InFusion US Emp Group
Period Type	Semimonthly	Monthly (Calendar)
First Period End Date	6/15/12	6/30/12

Default Payment Method	InFusion US Emp EFT	InFusion US Emp Check
------------------------	---------------------	-----------------------

6. On the Payroll Offsets page, in the Number of Years field, enter 5.
7. For the semimonthly payroll, use dynamic variables to define offsets as shown in this table, and then click **Next**.

Field	Falls Value	Day Type Value	Offset Value	Base Date Value
Cutoff Date	5	Work Days	Before	Period End Date
Payroll Run Date	3	Work Days	Before	Period End Date

8. For the monthly payroll, use fixed dates to define offsets as shown in this table, and then click **Next**.

Field	Value
Fixed Date	Yes
Cutoff Date	6/25/12
Date Earned	6/30/12
Payroll Run Date	6/27/12
Date Paid	6/30/12

9. On the Payroll Calendar page, adjust payroll days to account for a bank holiday, as shown in this table.

Column	Semimonthly Value	Monthly Value
Payroll Run Date	Old Value: 11/28/13	Old Value: 5/27/13
	New Value: 11/27/13	New Value: 5/28/13

10. Click **Next**.
11. Review the details of the payroll definition, and then click **Submit**.

## FAQs for Define Pay Frequency

### When would I close a payroll period?

Closing a payroll period can interfere with changes to recurring entries. Payroll periods are not like General Ledger periods. You do not need to close payroll periods.

### Why can't I select a payment method when creating a payroll definition?

There are two reasons why you might not be able to view and select the payment method you are looking for. Either the start date of the payroll definition is

before the start date of the organization payment method or the organization payment method has no associated payment source.

## Manage User-Defined Tables

### Creating a User-Defined Table for Matched Row Values: Example

This example illustrates how to create a user-defined table to store values for workers schedules.

#### Scenario

Your organization works on a 10 hour a day, four day a week rotating schedule. The employees work for four consecutive days, 10 hours a day.

#### User-Defined Table Components

The main components of the user-defined table are the definition, columns, rows, and values.

#### Analysis

In this example, you will construct a user-defined table containing the schedules available in your organization.

This figure illustrates the user-defined table containing the various schedules that your organization offers.

	Monday - Thursday	Tuesday - Friday	Wednesday - Saturday	Thursday - Sunday
Monday	10	0	0	0
Tuesday	10	10	0	0
Wednesday	10	10	10	0
Thursday	10	10	10	10
Friday	0	10	10	10
Saturday	0	0	10	10
Sunday	0	0	0	10

This user-defined table definition consists of the following:

- The name of the table is `Scheduled_Hours`.
- The table is used to match to a specific day of the week.
- The row title is Days of the Week.
- The unit of measure is text since the row values are days of the week.

The user-defined columns are named the days of the week that the employee works. The data type for each column is number. The data type reflects the data type of the values that will be entered in each column.

There are seven user-defined rows containing the exact value of a day of the week.

The values are the scheduled hours for each day of the week. Since the employees only work four consecutive days of ten hours each, there can only be four different schedules. Each column contains the scheduled hours for each day of the week represented in the row.

## Creating a User-Defined Table for a Range of Row Values: Example

This example illustrates how to create a user-defined table to store values for stock option allocations.

### Scenario

Each year, your organization offers stock options to its employees. The amount of options depends on years of service and job category of the employee receiving them.

### User-Defined Table Components

The main components of the user-defined table are the definition, columns, rows, and values.

### Analysis

In this example, you will construct a user-defined table containing stock option allocations by job category and years of service.

This figure illustrates the user-defined table containing the stock option allocation that your organization offers.

	Executive	Manager	Technical	Clerical
1 - 3	1000	500	250	125
4 - 5	2000	1000	500	250
6 - 8	3000	1500	750	375
9 - 10	4000	2000	1000	500
10 - 15	5000	2500	1250	625
16 - 20	6000	3000	1500	750
21 - 99	10000	5000	2500	1250

This user-defined table definition consists of the following:

- The name of the table is Stock\_Options.
- The table rows consist of a range of numbers that represent years of service.
- The row title is Years of Service.
- The unit of measure must be number when you are looking at a range of values.

The user-defined columns are named for each job category. The data type for each column is number. The data type reflects the data type of the values in each column.

There are seven user-defined rows containing the range of years of service allotting the same amount of stock options.

The values are the number of stock options. There are only four job categories, in this example. Each column contains the stock option allocation for each job category based on the range of service years.

## Define Fast Formulas

### Using Formulas: Explained

Fast formulas are generic expressions of calculations or comparisons that you want to repeat with different input variables.

You can use fast formulas to:

- Calculate payrolls
- Define the rules for paid time off accrual plans
- Define custom calculations for benefits administration
- Validate element inputs or user-defined tables
- Edit the rules for object group population for elements or people
- Calculate absence duration
- Define custom configuration for compensation

#### Calculate Payrolls

Write payroll calculations and skip rules for elements that you define to represent earnings and deductions. Associate more than one formula with each element to perform different processing for employee assignments with different statuses. You can define elements and formulas for earnings and deductions with highly complex calculations requiring a number of different calls to the database.

#### Define the Rules for Paid Time Off Accrual Plans

Edit the delivered accrual type formulas or write your own. Each accrual plan needs two formulas: one to calculate the gross accrual and the other to return information to the PTO carry-over process.

#### Define Custom Calculations for Benefits Administration

Configure your plan design to the requirements of your enterprise. Formulas provide a flexible alternative to the delivered business rules for such purposes as:

- Date calculations, such as enrollment start and end dates, rate or coverage start and end dates, waiting periods and enrollment periods, or action item due dates
- Calculations of rate and coverage amount, minimum and maximum, or upper and lower limits
- Certification requirements



- Partial month and proration calculations
- Eligibility and participation evaluation

For example, you can write a formula to calculate benefits eligibility for those cases where the provided eligibility criteria does not accommodate your particular requirements.

For more information, see Benefits Fast Formula Reference Guide (1456985.1) on My Oracle Support at <https://support.oracle.com>.

### **Validate Element Inputs or User-Defined Tables**

Validate user entries into element input values using lookups or maximum and minimum values. However, for more complex validations write a formula to check the entry. Also, use a formula to validate entries in user tables.

### **Edit the Rules for Populating Work Relationship or Payroll Relationship Groups**

Define criteria to dynamically populate a payroll relationship group or work relationship group. When you create a formula of type Payroll Relationship Group or Work Relationship Group, the Create Fast Formula page provides an expression editor to help you build the selection criteria.

### **Calculate Absence Duration**

Calculate the duration of an absence from the start and end dates.

### **Define Custom Configuration for Compensation**

Extend the existing flexibility of compensation plan configuration by writing formulas to customize:

- Start and end dates for compensation allocations under individual compensation plans
- Person selection, hierarchy determination, column default values, and currency selection for workforce compensation plans
- The source of items displayed in total compensation statements

## **Writing a Fast Formula Using Formula Text: Worked Example**

This example demonstrates, using the text editor, how to create a fast formula that returns the range of scheduled hours for managers and a different range for other workers.

The following table summarizes key decisions for this scenario:

<b>Decisions to Consider</b>	<b>In This Example</b>
Is the formula for a specific legislative data group?	No, this is a global formula that can be used by any legislative data group.
What is the formula type for this formula?	Range of Scheduled Hours
Are there any contexts used in this formula?	No
Are there any database item defaults?	Yes, ASG_JOB
Are there any input value defaults?	No
What are the return values?	MIN_HOURS, MAX_HOURS, FREQUENCY

## Creating a Fast Formula Using the Text Editor to Determine a Manager's Scheduled Hours

1. On the Payroll Calculation Tasks page, click Manage Fast Formulas to open the Manage Fast Formulas page.
2. On the Manage Fast Formula page, click the **Create** icon to create a new formula.
3. On the Create Fast Formula page, complete the fields as shown in this table.

Field	Value
Formula Name	Manager Range of Scheduled Hours
Formula Type	Range of Scheduled Hours
Description	Manager's Range of Hours
Effective Start Date	1-Jan-2010

4. Click **Continue**.
5. Enter the following formula details in the Formula Text section:

```
/* DATABASE ITEM DEFAULTS BEGIN */
DEFAULT FOR asg_job IS ' '
/* DATABASE ITEM DEFAULTS END */
JOB_1 = ASG_JOB
IF JOB_1 = 'Manager' then
  (MIN_HOURS = 25
  MAX_HOURS = 40
  FREQUENCY = 'H')
else
  (MIN_HOURS = 20
  MAX_HOURS = 35
  FREQUENCY = 'H')
return MIN_HOURS, MAX_HOURS, FREQUENCY
```

6. Click **Compile**.
7. Click **Save**.

## Writing a Fast Formula using Expression Editor: Worked Example

This example demonstrates how to create a fast formula that groups executive workers for reporting and processing. All executive workers are in department EXECT\_10000. Once the formula is created it will be added as object group parameters so that only those workers in department EXECT\_10000 are used in processing.

The following table summarizes key decisions for this scenario:

Decisions to Consider	In This Example
Is the formula for a specific legislative data group?	Yes, InVision
What is the formula type for this formula?	Payroll Relationship Group

## Creating a Fast Formula Using the Expression Editor

1. On the Payroll Calculation Tasks page, click Manage Fast Formulas to open the Manage Fast Formulas page.
2. On the Manage Fast Formula page, click the **Create** icon to create a new formula.
3. On the Create Fast Formula page, complete the fields as shown in this table.

Field	Value
Formula Name	Executive Payroll Relationship Group
Type	Payroll Relationship Group
Description	Executive Workers
Legislative Data Group	Vision LDG
Effective As-of Date	1-Jan-2010

4. Click **Continue**.
5. In the Formula Details section, click **Add After** to add a row to enter the fields in this table.

Conjunction	Database Item Name	Data Type	Operand	Literal Value
IF	DEPARTMENT	Character	=	'EXECT_10000'
Then	SELECT_EMP	Character	=	'YES'
ELSE	SELECT_EMP	Character	=	'NO'

6. Click **Compile**.
7. Click **Save**.

## Formula Compilation Errors: Explained

Compilation errors display in the Manage Fast Formulas page when you compile the formula. The formula compiler returns line numbers starting at 1 from the beginning of a formula, and character positions starting at 1 from the beginning of a line in its error messages. The compiler aborts compilation when an error is encountered.

### Common Compilation Errors

This table lists the type and description of several common formula compilation errors.

Formula Error	Description
Syntax Error	The formula text violates the grammatical rules for the formula language. An example is using <code>IF1</code> instead of <code>IF</code> for an <code>IF</code> statement.

Incorrect Statement Order	ALIAS, DEFAULT, or INPUT statements come after other statements.
Misuse of ASSIGNMENT Statement	Occurs when any of these conditions occurs: <ul style="list-style-type: none"> <li>• An ASSIGNMENT assigns a value to a database item.</li> <li>• A context is assigned a value externally to a CHANGE-CONTEXTS statement.</li> <li>• A non-context variable is assigned a value within a CHANGE-CONTEXTS statement.</li> </ul>
Misuse of ALIAS Statement	An ALIAS statement may only be used for a database item.
Missing DEFAULT Statement	A database item with defaulting specified must have a DEFAULT statement.
Misuse of DEFAULT Statement	A DEFAULT statement is specified for a variable other than an input or database item.
Uninitialized Variable	The compiler detects that a variable is uninitialized when used. The compiler cannot do this in all cases. This error often occurs when you want to use a database item, but a database item is not available in the formula.
Missing Function Call	A function call is not recognized. The combination of return type, function name, and parameter types does not match any available function.
Incorrect Operator Usage	An instance of a formula operator use does not match the permitted uses of that operator.  For example, the + operator has two permitted uses. The operands are both of data type NUMBER, or both of data type TEXT.
Inconsistent Data Type Usage	A formula variable is being used as if it is of more than one data type. Or a database item or context is being used with the wrong data type.  For example, Variable A is assigned a NUMBER value at the start of the formula, but a TEXT value later in the formula.
EXIT Statement Not Within WHILE Loop	A condition that eventually becomes false, or an EXIT call for exiting the loop does not exist.
Misuse of Context	A variable is used as a context, or a context is used as a variable.  For example, AREA1 is assigned a value as an ordinary variable, but later in the formula AREA1 used as a context in a GET_CONTEXT call.

## Formula Execution Errors: Explained

Fast formula execution errors occur when a problem arises while a formula is running. The usual cause is a data problem, either in the formula or in the application database. These errors contain the formula line number where the error occurs.

## Formula Execution Errors

This table lists the type and description of each formula execution error.

Formula Error	Description
Uninitialized Variable	Where the formula compiler cannot fully determine if a variable or context is initialized when it is used, it generates code to test if the variable is initialized.  When the formula executes and the variable or context is not initialized an error is raised.
Divide by Zero	Raised when a numeric value is divided by zero.
No Data Found	Raised when a non-array type database item unexpectedly fails to return any data. If the database item can return no data then it should allow defaulting.  This error is also raised from within a formula function. The cause is an error in the formula function code.
Too Many Rows	Raised when a non-array type database item unexpectedly returns more than a single row of data. The cause is an incorrect assumption made about the data being accessed.  This error can also be raised from within a formula function. The cause is an error in the formula function code.
NULL Data Found	Raised when a database item unexpectedly returns a NULL data value. If the database item can return a NULL value then defaulting is allowed.
Value Exceeded Allowable Range	Raised for a variety of reasons, such as exceeding the maximum allowable length of a string.
Invalid Number	Raised when an attempt is made to convert a non numeric string to a number.
User Defined Function Error	Raised from within a formula function. The error message text is output as part of the formula error message.
External Function Call Error	A formula function returned an error, but did not provide any additional information to the formula code. The function might have output error information to the logging destination for the executing code.
Function Returned NULL Value	A formula function returned a NULL value.
Too Many Iterations	A single WHILE loop, or a combination of WHILE loops, has exceeded the maximum number of permitted iterations. The error is raised to terminate loops that could never end. This indicates a programming error within the formula.
Array Data Value Not Set	The formula attempted to access an array index that has no data value. This is an error in the formula code.
Invalid Type Parameter for WSA_EXISTS	An invalid data type was specified in the WSA_EXISTS call.

Incorrect Data Type For Stored Item	When retrieving an item using <code>WSA_GET</code> , the items actual data type does not match that of the stored item. This is an error within the calling formula.
Called Formula Not Found	The called formula could not be resolved when attempting to call a formula from a formula. This could be due to an error in the calling formula, or because of installation issues.
Recursive Formula Call	An attempt was made to call a formula from itself. The call could be directly or indirectly via another called formula. Recursive formula calling is not permitted.
Input Has Different Types In Called and Calling Formulas	When calling a formula from a formula, the actual formula input data type within the called formula does not match the data type specified from the calling formula.
Output Has Different Types In Called and Calling Formulas	When calling a formula from a formula, the actual formula output data type within the called formula does not match the data type specified from the calling formula.
Too Many Formula Calls	There are too many formula from formula calls. This is due to a problem with the formulas.

## FAQs for Define Fast Formulas

### When do I run the Compile Formula process?

If you need to compile many fast formulas at the same time, you can run the Compile Formula process on the Submit a Process or Report page. Also, if you make any changes to a function after you have compiled a formula that uses it, you need to recompile the formula for the changes to take effect.

### What's the difference between a formula compilation error and an execution error?

Compilation errors occur in the Manage Fast Formulas page when you compile the formula. An error message explains the nature of the error. Common compilation errors are syntax errors resulting from typing mistakes.

Execution errors occur when a problem arises while a formula is running. The usual cause is a data problem, either in the formula or in the application database.

## Define Balance Definitions

### Balance Definitions: Explained

Payroll balances show the accumulation of values over a period of time. The values can be currency, hours, or any other numeric value. You manage balance

definitions from the Payroll Calculation work area. Most of the balances you require are predefined and additional balances are created automatically when you create elements. You can edit the definition of these generated balances, or create additional balances for calculations or reporting.

When you create a balance definition, you select the balance category and a unit of measure. Each balance definition is grouped in a predefined balance category for quicker processing. Balance categories are legislation-specific and cannot be modified. The predefined units of measure available for selection are Day, Hour (with different combinations of minutes and seconds), Integer, Money, and Number.

Important aspects of balance definitions are:

- Balance Dimensions
- Balance Feeds
- Generated Balances and Database Items
- Base Balances
- Remuneration

### **Balance Dimensions**

Each balance can have multiple dimensions, which define the specific value to be retrieved. Balance dimensions are predefined and typically combine these components:

- Time span, such as run, period to date, or fiscal year to date
- Employment relationship level, either assignment, terms, or payroll relationship
- Context, required for some balances only, such as tax reporting unit, element, or payroll

For example, if you select the dimension Core Assignment Tax Unit Year to Date for the balance Gross Earnings, you create the defined balance GROSS\_EARNINGS\_ASG\_TU\_YTD, which accumulates gross earnings for an assignment in a specific tax reporting unit from the beginning of the calendar year to date.

### **Balance Feeds**

You can define balance feeds by element input values or by balance classification run results.

- Balance Feeds by Element

Balance feeds by element indicate one or more element input values to add or subtract from a balance. For each balance feed, all elements must be of the same data type. For example, you would not mix money and hours in the same balance feed.

If a balance is fed by a single element, it is called a primary balance.

- Balance Feeds by Classification

Balance feeds defined by primary or secondary element classification are always payroll run result values.

If you add a primary classification as a balance feed, you cannot add the children of this classification from the secondary or subclassifications. For example, if you use the Supplemental Earnings primary classification as a balance feed, you cannot also use any secondary or subclassification that are children of Supplemental Earnings. Also, you cannot use both secondary classifications and subclassifications in the same balance feed.

For any balance that you need to initialize, regardless of whether it is fed by elements or classifications during normal processing, you can select elements to feed it for balance initialization purposes only. Select one element for each level of the employment hierarchy associated with a dimension that you want to initialize.

### **Generated Balances and Database Items**

When you create elements, balances and balance feeds are created automatically as determined by the element template. A database item is generated automatically for each balance dimension. You can use the database items in your formulas to check the value of a balance.

### **Base Balances**

You can specify a base balance when there is a relationship between balances that can be relied on when processing and reporting. For example, Loan Repayment could be the base balance for Loan Repayment Arrears.

### **Remuneration**

One balance in a legislation is predefined as the remuneration balance, which is used to generate payments for employees. For example, the remuneration balance might be Net Pay, which is a calculated balance that is the sum of standard earnings and supplemental earnings minus all the deductions calculated for the run.

---

#### **Important**

Setting the Use for Remuneration option to Yes means the balance will be defined as the remuneration balance. Only one balance in a legislation can be the remuneration balance.

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## **Load Initial Balances**

### **Initial Balance Loading: Explained**

Setting initial balances values is an essential task when you migrate payroll data from another system. First you load balance values into batch views then submit the Load Initial Balances process from the Payroll Calculation work area. The process validates then processes the batch.



## Balance Initialization Elements

For each balance to be initialized, you must create elements in the Balance Initialization classification and add them to the balance as balance feeds. You can create up to three elements: one to initialize assignment level balances, one for employment terms level, and one for payroll relationship level.

Each balance initialization element must:

- Be nonrecurring and for balance adjustments only.
- Be processable in the payroll run.
- Have an input value to feed the balance and an input value for each context required by the balance. If you need to set initial values for a large number of balances you can define multiple input values for a single element with each input value feeding a different balance.

## Batch Views

Populate the batch views with the balance values for the initialization date. You can use the Batch Loader spreadsheet, or populate the batch directly using the API in the PAY\_BALANCE\_BATCH\_LINES\_PKG API package. You can download the Batch Loader spreadsheet in the Payroll Administration work area.

The views are:

- PAY\_BALANCE\_BATCH\_HEADER
- PAY\_BALANCE\_BATCH\_LINES

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### Important

The PAY\_BALANCE\_BATCH\_LINES view has a complex definition and cannot be directly inserted into. You must use the Batch Loader spreadsheet or API.

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When you create the batch header and lines, consider the following points:

- Divide your employees into separate batches to limit the size of each batch.
- Within a batch, ensure that you include batch lines for every balance to be initialized for a person. You cannot split lines for a person across multiple batches.
- The date you specify on the batch header applies to all lines unless you enter an override date at the line level. The date at line level must be on or before the date on the header.
- You cannot initialize balances once you have run any payroll processes.

## Initial Balances: How They Are Loaded

The Load Initial Balances process validates then processes the initial balance values you load into batch views. It creates balance adjustments to set the required values.

## Settings That Affect Initial Balances

The data you load into the batch views determines which defined balances are initialized and the values used. Typically, you group employees into batches to manage the initialization of their balances.

## How the Balances Are Initialized

The Load Initial Balances process validates that the entities referenced in the batch data exist, including balances, balance dimensions, tax reporting units, payrolls, payroll relationships, employment terms, and assignments. It checks that values are available for the contexts used by each balance dimension. It does not check, for example, that an employee is assigned to a specified organization. It sets the status of valid batch lines to V.

The process creates balance adjustments. For all the batch lines it successfully processes, the process sets the status to T and updates the PAYROLL\_REL\_ACTION\_ID to point to the balance adjustment.

### Examples

The following table shows a simple three-line batch loaded on 18 June.

Defined Balance	Value
Total_Earnings_PTD	100
Total_Earnings_QTD	250
Total_Earnings_YTD	500

For this batch, the process creates an adjustment on the first day of the time period relevant to each dimension, as shown in the following table:

Adjustment Date	Adjustment Value	Balances Adjusted
1 June	100	Total_Earnings_PTD Total_Earnings_QTD Total_Earnings_YTD
1 April	150	Total_Earnings_QTD Total_Earnings_YTD
1 Jan	250	Total_Earnings_YTD

## Balance Batch Header and Lines Views

The PAY\_BALANCE\_BATCH\_HEADER and PAY\_BALANCE\_BATCH\_LINES views hold the data used by the Load Initial Balances process to initialize balance values.

You must load data into these views using the Batch Loader spreadsheet or API in the PAY\_BALANCE\_BATCH\_LINES\_PKG PL/SQL package. Create each batch line with a BATCH\_LINE\_STATUS of U (unprocessed) and leave the

PAYROLL\_REL\_ACTION\_ID column blank. The batch upload process updates these two columns.

## Required Columns

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### Note

You can view the full column listing by querying the view in the Oracle Enterprise Repository at <https://fusionappsoer.oracle.com/oer/>.

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In PAY\_BALANCE\_BATCH\_LINES, the columns shown in the following table are required. Where there is both an ID column and a name column for the same entity, for example, PAYROLL\_ASSIGNMENT\_ID and ASSIGNMENT\_NUMBER, you can populate either column, but you must populate at least one. If the ID column is left blank, the batch upload process uses the name column value to derive the ID value.

Column	Comments
PAYROLL_RELATIONSHIP_ID + PAYROLL_RELATIONSHIP_NUMBER	Identify the payroll relationship for this balance value.
BALANCE_TYPE_ID + BALANCE_NAME	Identify the balance for this balance value.
BALANCE_DIMENSION_ID + DIMENSION_NAME	Identify the balance dimension for this balance value. DIMENSION_NAME should be populated with the localization's dimension usage dimension name rather than the core DIMENSION_NAME held on PAY_BALANCE_DIMENSIONS.
VALUE	Identify the numerical value of the balance on the upload date.
UPLOAD_DATE	Identify the date of the balance value. This date must be on or before the upload date for the batch header.
PAYROLL_ID + PAYROLL_NAME	Identify the context required for evaluating a balance value, even though it may not be a context for the dimension.

## Core Context

The core contexts shown in the following table must be populated if the balance dimension expects a value for this context.

Column	Comment
PAYROLL_TERM_ID + TERM_NUMBER	Identify the payroll term for this balance value, if required. Where there is both an ID column and a number column for the same entity, you can populate either column, but you must populate at least one.
PAYROLL_ASSIGNMENT_ID + ASSIGNMENT_NUMBER	Identify the payroll assignment for this balance value, if required.
LEGAL_EMPLOYER_ID + LEGAL_EMPLOYER_NAME	

TAX_UNIT_ID + TAX_UNIT_NAME	
AREA1 + AREA2 + AREA3 + AREA4	Identify state and country code information. In Oracle E-Business Suite these items were STATE_CODE, COUNTY_CODE and so on.
THIRD_PARTY_PAYEE_ID + THIRD_PARTY_PAYEE_NAME	
TIME_DEFINITION_ID + TIME_DEFINITION_NAME	
RUN_TYPE_NAME + RUN_TYPE_ID	
ELEMENT_ENTRY_ID	
BALANCE_DATE	
CALC_BREAKDOWN_ID	Identify the ID associated with payroll term.

### Legislative or User-defined Context Columns

There are six legislative or user-defined contexts, which must be populated if the balance dimension expects a value for these contexts. For each context, there is a context ID, name, and value. For example:

- CONTEXT1\_ID + CONTEXT1\_NAME
- CONTEXT1\_VALUE if CONTEXT1 is used by the balance dimensions

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#### Note

The values of the core contexts are the IDs themselves, while the values of the legislative contexts are separate from the ID of the context.

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Populate CONTEXT[1-6]\_NAME with the name of the context usage for that legislative or user-defined context, and CONTEXT[1-6]\_VALUE with the actual value of that context.

## Define Earning and Deduction Definitions

### Element Classification Components: How They Work Together

Elements are grouped into primary classifications, such as Earnings and Voluntary Deductions. In a human resources department, you can use the primary classifications to identify groups of elements for information and analysis purposes. In a payroll department, the classifications control processing, including the sequence in which elements are processed and the balances they feed.

#### Primary Classifications

Oracle Fusion provides you with these primary classifications and some balances, mainly to reflect tax legislation. They are designed to meet the legislative requirements of your country, so you cannot change them. You can create additional balances to be fed by any of the primary classifications.

## Secondary Classifications

Secondary classifications are subsets of the primary classifications. Use them to manage wage basis rules for deductions and taxes. Many legislations have predefined secondary classifications, and a few allow you to create your own. As with primary classifications, you cannot remove or change any predefined secondary classifications.

## Subclassifications

Subclassifications provide a way to feed balances. Elements can have only one primary and secondary classification, but multiple subclassifications. You can create subclassifications or use predefined ones. Once a subclassification is associated with a classification it cannot be associated with another classification. A subclassification name can be reused under different primary classifications, but you will have to create separate balance feeds for each subclassification with the same name.

## Costing

If the classification is set to allow costing, you can select any costing option for element eligibility records. You can create distribution groups with elements that have a primary classification that allows distribution. For example, you can create a distribution with all of the earnings elements and prorate tax expenses proportionately over the cost centers in which the wages were earned. The primary classification also determines whether a positive amount is costed as a debit or a credit.

## Frequency Rules

Use frequency rules on an element that is not scheduled to process each period. For example, the rules for a weekly payroll could indicate that the element entries for that element would only be processed on the first and third payroll periods of each month. The default frequency rule is always each period.

# Element Processing Sequence: How it is Determined

Payroll runs process elements in a predefined sequence, which you can determine.

## How Processing Order Is Determined

An element's primary classification defines a default processing priority for the element in payroll runs. Lower priority numbers process first

## Overriding Default Processing Priority

Most classifications also have a priority range. When you define an element in these classifications, you can overwrite its default processing priority with another number from the range. This is useful if you need to establish the

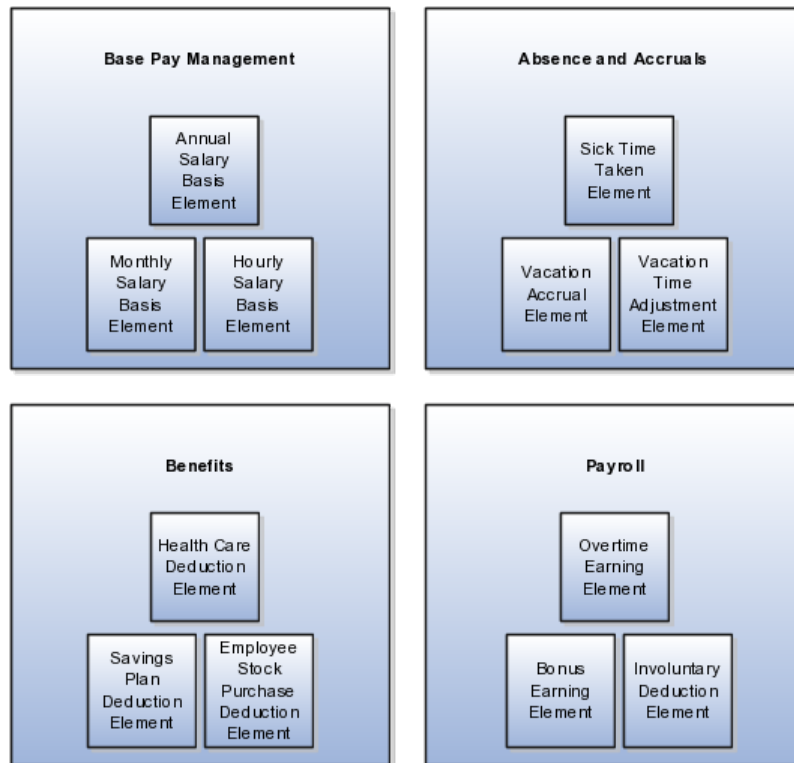
order in which the element processes with respect to other elements in the classification

Sometimes you must prioritize the processing of certain element entries for an individual person. For example, you may need to determine the precise order in which deductions taken for wage attachments process for a person. You can enter a subpriority number for element entries.

## Manage Elements

### Elements: How They Work in Salary, Absence, Benefits, and Payroll

Elements are building blocks that help determine the payment of base pay, benefits, absences, and other earnings and deductions. The components of elements are set up differently based on how the element is to be used.



#### Base Pay Management

To manage base pay, you attach a single earning element to each salary basis to hold base pay earnings, and assign a salary basis to each worker. When a manager or compensation specialist enters a base pay amount for a worker, the amount is written to the payroll element input value associated with the worker's salary basis and used in payroll processing to generate payment amounts.

#### Absence and Accruals

You can manage employee absences and leave time. To facilitate reporting and analysis of employee absences, you can distinguish between absence categories,

absence types, and absence reasons. You can associate an absence type with an element to maintain an absence balance for an employee. You can associate absence types and other elements with accrual plans to determine the net accrual of an employee.

## **Benefits**

Attach elements at various levels in the benefits object hierarchy to create deductions and earnings that can be processed in a payroll run to calculate net pay.

## **Payroll**

For Oracle Fusion Global Payroll, you define earning and deduction elements, such as bonus and overtime earnings and involuntary deductions. These elements incorporate all the components required for payroll processing, including formulas, balances, and formula result rules.

## **Elements: Explained**

Elements are the building blocks of payroll and benefits. There is no limit to the number of elements you can define. You define the policies or business rules that govern the allocation of these elements to your workers.

Elements can represent:

- Earnings, such as salary, wages, and bonuses
- Compensation, such as employee stock purchase and insurance plans
- Absences from work
- Tangible items distributed to persons, such as tools, uniforms, mobile phones, or computers
- Statutory deductions, such as taxes, voluntary deductions, such as contributions to charities or savings plans, and involuntary deductions, such as court orders, as well as pretax deductions
- Employer taxes and other employer liabilities

Oracle Fusion supplies many predefined elements while additional elements are generated when you define certain types of compensation and payroll elements through templates.

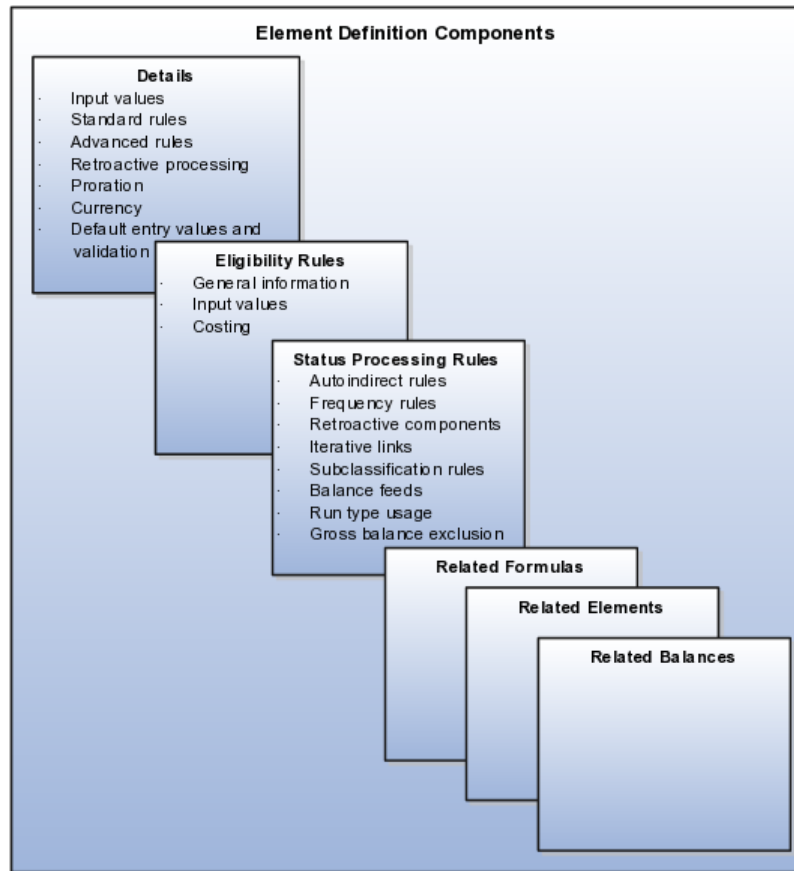
## **Predefined Elements**

The predefined elements are specific to your localization. They typically include deductions for tax and wage attachments. You cannot make any changes to these predefined elements.

## **Element Creation**

You can create many earnings and deductions from element templates. The templates include the elements, balances, balance feeds, and formulas required for payroll processing. You can configure any of these definitions to match your specific business requirements.

The components of an element's definition are available for entry based on the primary and secondary classification you select, for example a standard earning. This diagram illustrates element definition components and what is defined in each component.



For example, you can define an element called Wage, for hourly paid workers. You classify the element in the predefined classification Earnings, which determines when it is processed in the payroll run and what payroll balances it feeds.

You must specify at least one input value, in this case Hours Worked, which must be entered in each payroll period. If required, you can define multiple input values with fixed values, defaults, or validation.

You associate a formula with the element, to calculate the wage for the payroll period. A simple formula might be hours worked, from the input value, multiplied by an hourly rate, from compensation information on the employment record. You define who is eligible for the element by assigning eligibility criteria to various components in the persons employment record, such as grade, payroll, salary basis, or organization. In this example, the wage element is available to all persons on the weekly payroll.

## Element Input Values: Explained

An element's input values defines the entry values available on each entry of this element. Each input value has a unit of measure defined, and can have



validations and conditions defined to control the data entry of the element entry assigned to a person. For example, an earnings element may have an input value for hours worked, which is defined as required and has a unit of measure of number.

When you create an element, some input values are created automatically if you use Oracle Fusion Global Payroll or Oracle Fusion Global Payroll Interface. For Global Payroll Interface, this applies to earnings elements only. You can create additional input values for any element, as needed.

## Input Value Options

For each input value created you can modify these attributes:

Field	Purpose
Display Sequence	Control the order in which the entry value is displayed on element entries.
Special Purpose	Identify how an input value is used, irrespective of the name given to it. For example, it identifies if the input value holds a percentage value, a rate, or third-party payee details. It basically assists with processing the input value based on what type of information it holds.
Unit of Measure	Select the value that describes the type of value the entry value can hold, such as number or character.
Displayed	Select to display the input value on the element entry.
Allow User Entry	Select to enter values on element entries.
Required	Select to make the input value a required entry value on the element entry. If you select Required, you must also select Displayed and Allow User Entry.
Create a Database Item	Select to have a database item created for the input value to make the values available for formulas or system extract.
Default	Enter a value that appears as the default value for this entry value in element entries, if needed.
Apply default at runtime	Select to have the default set on the element entry when the payroll process is run. Changes to the default value are reflected in the next processing after the effective date of the change.  You can replace the default at runtime functionality by manually providing an entry value on the element entry.
Minimum	Enter a minimum value for the element, if needed.
Maximum	Enter a maximum value for the element, if needed.
Validation Formula	Enter a formula that validates the entry value entered on element entries, if needed.
Validation Source	Use with the other input value options to select the valid validation method, such as lookups or formulas.
Lookup Type	Specify a lookup type to provide a list of values for an element entry value.

Warning or Error	Use when you are validating the input value or entering a minimum or maximum value. It specifies whether a warning or an error displays if the entry fails the validation condition or does not meet the minimum or maximum value indicated.
Reference	<p>Use to associate a balance context with the run result. For example, if you want to associate a context, such as jurisdiction, with an element; create an input value for jurisdiction and select the jurisdiction context in the reference field. Then the run result value of the input value will work as context value when updating the balance.</p> <p>If you select a reference then the lookup type and validation source values should be automatically set to the reference context. You need to provide the reference field first for the validation source value to be automatically populated.</p>

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#### Note

Once an element is processed, you cannot update certain input value attributes, such as unit of measure. This ensures that changing certain attributes will not invalidate prior results.

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## Maintaining Elements: Explained

After you have defined and used an element, updates to the element are limited to ensure the integrity of the element for retroactive processing and the balances of the input values. You cannot remove existing input values or add new ones if you have created entries for the element. You must add an input value to an element before you create any element entries, or set the element entries effective date to the element's start date.

You can make the following changes to an element that has been previously processed:

- Change a required input value to be optional.
- Alter the sequence in which input values appear in the Element Entries flow.
- Change the input value validation rules for minimum, maximum, lookup, or formula.
- Change your specification of which input values create database items.

## Determining Entry Values for an Element: Critical Choices

You can select rules for the element's entry value to define how you can update the element entries. The options are:

- Automatic entry
- Allow multiple entries in same period

- Additional entry

## Automatic Entry

Entry values can be automatically added in element entries in three ways.

1. Elements can be defined to default an input value at creation. The user defining the element can specify the entry value to be defaulted when an element entry is created. Users can override or change the default at any time. Changes to this type of a default value on the element do not affect existing element entries.
2. Elements can be defined to default an input value at run time. When this is selected, the element will automatically default the element entry value. This value can be updated if needed. A change to the default value for an input value set to default at run time will automatically change the value to be applied at run time for everybody with an entry for that element.
3. Some entry values are automatically created by a service or process used with compensation, benefits, or formula results.

---

### Important

An element with automatic entry allowed cannot **allow multiple entries in the same period**.

---

## Allow Multiple Entries in Same Period

This option allows you to give a person more than one entry of the element in the same pay period. For example, if you enter overtime hours on a weekly basis for monthly-paid persons, you might need to give a person five entries of an overtime element in each period.

If you are creating a net-to-gross element, you must select **Allow multiple entries in same period**.

## Additional Entry

This option allows you to add an occasional one time entry for recurring elements. This additional entry can override or add to the normal entry amount.

## Element Result Rule Options: Explained

At minimum, an element needs one standard processing rule. This identifies the formula the payroll run uses to process the element for persons with an active employment record. It is also the default formula for other assignment statuses. However, you can define additional processing rules if you need to use different formulas for assignments at other statuses. For example, you could have two rules for a Wages element: Standard Wages and Paid Training Leave.

You can add one or more of the following optional results rules to an element:

- Direct result

- Indirect result
- Message
- Order indirect
- Stop
- Target indirect

For all formula result types except Direct Result or Message, select the target element name to which you want to pass the formula result. This element must have a processing priority causing it to process after the element sending the result.

For the formula result types Direct Result, Indirect Result, and Target Indirect, select the target input value to update.

### **Direct Result Rule**

This is the element's run result, or a direct result updating one of the element's input values.

### **Indirect Result Rule**

This result passes as an element entry to another nonrecurring element not yet processed.

### **Message Rule**

The formula issues messages under certain conditions. For example, a formula can check a loan repayment balance and, if the balance is zero, issue the message "Loan is repaid."

There are three severity levels for a message rule:

- Error  
This causes the run to roll back all processing for the employment record.
- Warning  
This does not affect payroll processing but warns you of a possible problem.
- Information  
This does not affect payroll processing.

### **Order Indirect Rule**

This result updates the subpriority of the element you select in the Target Element Name field.

### **Stop**

This formula result uses the Date Earned of the payroll run to put an end date on a recurring entry of this or another element (which must be defined with Allow Multiple Entries not selected).

## Target Indirect

This result updates recurring entries of this or another element on the effective date of the payroll run. The receiving element must be defined with Allow Multiple Entries not selected unless you are passing a recurring element's entries to itself, that is updating another entry of the same element. With this result rule, any future-dated changes to the entry will be overwritten by the results of the current payroll run.

## Determining an Element's Latest Entry Date: Critical Choices

An element's latest entry date determines how element entries process after a person is terminated or transferred to another payroll. The options are:

- Final close
- Last standard earning date
- Last standard process date

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### Note

These are the predefined options, you can create others that fit your business needs.

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### Final Close

This option allows the element to stay open for entries beyond a person's last day worked. For example, you want the element to stay open to pay a severance package to a terminated person.

### Last Standard Earning Date

This option stops all element entries on the date the person leaves. It is recommended to use this option for recurring entries such as salary.

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### Note

When you select the Last Standard Earning Date, also select proration for the element. This ensures the element is processed for proration purposes, even if it is not active at the end of a payroll period.

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### Last Standard Process Date

The last standard process date defaults to the last day of the pay period in which the person is terminated, but you can set it to a later period when you terminate a person. It enables all element entries to stop on the last standard process date or on the date the assignment ends, if this is earlier.

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### Note

This option is only available for Oracle Fusion Global Payroll users.

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## Element Eligibility: Explained

Element eligibility determines which people are eligible for an element. To determine eligibility, you assign element eligibility criteria to the components that persons must have to receive entries of the element. While some elements may represent compensation, deductions, and equipment available to all persons, many elements are available only to certain groups of persons. For example, your enterprise might provide company cars only to persons in the Sales Department. Eligibility criteria rule out the possibility of persons getting element entries by mistake. For example, you might want to give a production bonus only to those persons who work full time in Production and are on the weekly payroll. To do this you would define eligibility criteria for the element Production Bonus and the combination of the Production organization, the Full-Time assignment category, and the Weekly payroll.

### Eligibility Criteria

Element eligibility can be assigned by many different criteria.

- All payrolls or for specific payrolls
- Payroll statutory unit
- Legal employer
- Payroll relationship type
- Department in which the person works
- Location of person's office
- Job, for example, Associate Professor or Secretary
- Grade
- Groups to which the person belongs. You set up all the groups that are appropriate for your enterprise. For example, you could decide to group persons by company within a multi-company enterprise, and by union membership.
- Position, which is a class of job performed in a particular organization, for example, Associate Professor of Chemistry, or Finance Department Secretary.

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### Note

In order to enter an element for a worker, you must define element eligibility for every element. This must be done for predefined elements and those you define. If you want the element to be available to all workers, you can save the element eligibility record with no criteria selected. This is the usual practice for compensation and benefit elements where you determine eligibility using eligibility profiles.

---

## Multiple Rules of Eligibility

You can define more than one eligibility criteria for each element but there must be no overlap between them. For example, you could create one criteria for the combination of grade A and the job Accountant. However, you could not create one criteria for grade A and a second for the job Accountant. This would imply that an accountant on grade A is eligible for the same element twice. If you have more than one criteria for an element, you can enter different default values, qualifying conditions, and costing information for each eligibility group.

## Maintaining Element Eligibility: Explained

Element eligibility rules always control element entries.

After you have used an element you can make the following changes to the eligibility rules:

- Change the input value default values and validation.

These changes affect all new entries. Changes to run time defaults affect existing entries. The system also uses the new validation rules to check any updates you make to existing entries.

- Date-effectively end all of the rules that apply to an element and define a new set of rules, which are effective from a later date. For example, suppose you have defined eligibility for a company car based on grade. Following a change of policy you must now define eligibility based on job.
  - You will not be allowed to end the element eligibility if any nonrecurring entries exist at the date you want to end the rule. You must delete existing entries before you end the element's eligibility.
  - You can end the element eligibility if recurring entries exist. Any existing entries will be ended automatically when you end the element's eligibility.
- Change the qualifying conditions of age and length of service that persons must meet to be eligible for the element.

## Element Proration: Explained

Proration is the calculation of proportionate element amounts whenever payroll-relevant data is changed during a payroll period. For example, a person joining or leaving the company or a change of pay grade, mid-payroll period, could trigger proration. You add a proration formula to the element and add the element to a proration event group.

### Proration Formula

The proration formula determines how to prorate the element. For example, you can prorate based on hours in a pay period or days in a pay period. You can either use a payroll formula that handles proration, or create a separate proration formula that runs after the main payroll formula only in payroll periods in which a proration event occurs.

## Proration Event Group

You must assign an event group to an element to prorate it. When you define the event group, you select the events that activate proration calculation, such as hiring a person or terminating employment.

## Gross-Up Earning: How It Is Calculated

Gross-up functionality enables you to calculate the gross earnings required to generate a specified net pay for a given earning, if you need to pay a person a guaranteed take home pay (net) per payroll period, or to pay a specified bonus of a set amount (net amount). You define which taxes and other deductions the employer is willing to pay by selecting the balances that can be used in the net-to-gross processing.

## Settings That Affect Gross-Up Earning Element

Follow these steps to set up elements for gross-up processing.

1. On the Standard Rules section of the earning element, define the element with the following criteria:
  - Nonrecurring entry
  - Allow multiple entries in same period
  - Enter a skip rule to process once per pay period
2. On the Duration Rules section define the Latest Entry Date to be **Final Close**.
3. On the Advanced Rules section, define the element with the following criteria:
  - Gross-up during calculation
  - Pay separately from other elements
  - Select Yes to enable iterative calculation
  - Enter an iterative order.

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### Note

Iterative order must be in the reverse sequence of the processing priority numbers. The element with the lowest iterative priority number is reduced first.

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- Enter an iterative formula.
4. Chose the following input values for the element:

Input Value Name	Purpose of Entry
Pay Value	The gross pay is returned to this input value when it has completed the gross-up calculations.



Amount	The amount gives the iterative formula the desired net pay.
Low Gross	The low gross is used by the iterative formula to hold the lower gross pay guess, to feed into the next iteration of the formula.
High Gross	Used by the iterative formula to hold the higher gross pay guess, to feed into the next iteration of the formula.
Remainder	The amount by which the additional pay to be paid by the employer (gross minus desired net) differs from the total of the balances that are eligible for gross-up processing. Returned by the iterative formula.
To Within	The amount by which actual net can differ from desired net after normal processing. Must not be zero but can be a nominal amount such as 0.01.
Method	The method of iterative calculation: binary or interpolation. This determines which function the iterative formula calls. Use the lookup type ITERATIVE_METHOD and select the default interpolation, since this is usually the more efficient method.
Additional Amount	The amount to add to desired net to calculate gross pay. Returned by the iterative formula.

5. Define element eligibility rules.
6. On the Processing Rule section, enter the following formulas:
  - Add a gross-up formula in the standard processing formula name
  - Create a formula result rule to feed the payment amount result as a direct result to the element's pay value.
7. On the Balance Feeds section, confirm which balances feed your gross-up element.
8. On the Gross Balance Exclusions section, select the deductions to be paid by the employer.

## How Gross-Up Earning Is Calculated

The formulas for Net-to-Gross processing do the following:

- The iterative formula takes as input the desired net amount (Amount input value), the amount by which net can differ from the desired amount (To Within input value), and the method of calculation (Method input value).

- In the first run the formula sets the lower gross limit to the desired net amount, and the higher gross limit to twice the desired amount. Then it runs a function to provide the first guess of the gross. The formula returns three values to the element's input values: low gross, high gross, and additional amount.
- The element's payroll formula runs. It adds the additional amount to the desired amount to create the gross amount and returns this value to the element's pay value for the payroll run to process.
- In the next iteration, the iterative formula compares the additional amount to the total value of the balances that are available for gross-up for this element entry. The additional amount must not differ from this balance total by more than the amount you specified in To Within field.
  - If the additional amount equals the balance total, then the iterative processing ends.
  - If the additional amount is above or below the balance total by an acceptable margin, then the processing ends and the formula returns the remainder (additional amount - balance) to the element's Remainder input value.
  - Otherwise, the formula runs the function to generate a better estimate for gross, using the remainder to determine by how much to change the guess. The formula checks the results in another iteration.

## Absence Processing in Payroll Runs: Critical Choices

When you create an absence element for an absence type, your choice of element classification determines how absence entries display on the statement of earnings. You must use one of the following classifications:

- Information classification or Absence classification
- Standard Earnings classification

### Using the Information or Absence Classification

Use either of these classifications if you want to:

- Process absences in a single calculation.
- Prevent absence entries from appearing on the statement of earnings that the payroll run generates.

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#### Note

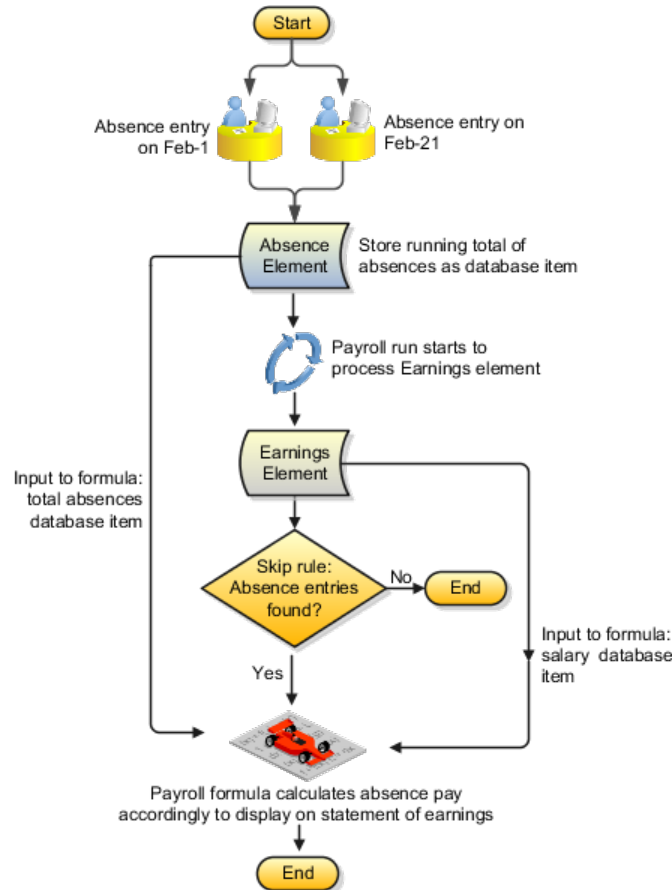
Although both the Information classification and Absence classification work in the same way, you can select either classification depending on your reporting requirement.

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Since payroll runs do not process elements in the Information or Absence classifications, you can use an Earnings element to manage the calculation and payment of absences. For example, you can define a skip rule for an Earnings element that triggers processing when it finds an entry for the absence element. The payroll formula associated with the Earnings element uses the database item of the absence element to retrieve the total number of absences. Then the formula

uses another database item to retrieve the salary or hourly rate to calculate the total absence pay for the period and, if necessary, reduce the regular earnings.

The following figure depicts the relation between the Absence element, Earnings element, skip rules, and the payroll formula associated with the Earnings element:



### Using the Standard Earnings Classification

Use this classification if you want to:

- Process absences individually in each payroll period.
- Treat absence entries as earnings.

This approach creates a one-line entry on the statement of earnings for each absence type. For example, you can use this classification if your employees submit timecards, and you want absences taken by these employees to show on the statement of earnings.

### Recurring and Nonrecurring Absence Elements: Critical Choices

When you set up an absence type, you can determine how absences are processed in payroll runs. Choose the type of element to associate with the absence type:

- Use a nonrecurring absence element.

- Use a recurring absence element (only if you use Oracle Fusion Global Payroll and enable proration).

### Using a Nonrecurring Absence Element

Nonrecurring absence elements are valid for the payroll period in which the absence starts. The application creates the entry only when you enter the absence end date. The element entry records the full value of the absence duration even if the end date falls beyond the payroll period.

For example, if you enter an absence that starts on May 24 and ends on June 5 for someone on a monthly payroll, the element entry is dated May 1 to May 31 and records the full value of the absence duration (13 days).

### Using a Recurring Absence Element

Use a recurring absence element if you want the payroll run to process absences that have not ended. To process the absence element and calculate the absence duration in each payroll period, you use a payroll formula that handles proration.

Recurring absence element entries start on the absence start date and end on the absence end date (if there is an end date). If the absence starts or ends in the middle of a payroll period, the payroll run detects and processes the absence using the proration functionality.

## Creating Earnings Elements for Payroll: Worked Example

The example shows how payroll managers create a regular earnings element using an element template.

First you create an earning element then update it to allow for multiple entries.

### Creating an Earnings Element

1. In the Payroll Calculation work area, click **Manage Elements**.
2. Click **Create**.
3. Complete the fields, as shown in this table.

Field	Value
Legislative Data Group	Your Legislative Data Group
Primary Classification	Standard Earnings
Secondary Classification	Regular

4. Click **Continue**.
5. On the Basic Details page, complete the fields, as shown in this table.:

Question	Answer
Name	REGULAR SALARY
Reporting Name	Regular Salary.
Effective Date	1/1/2010

Input Currency	US Dollar
Should every person eligible for the element automatically receive it?	No.
What is the earliest entry date for this element?	First Standard Earnings Date
What is the latest entry date for this element?	Last Standard Earning Date
At which employment level should this element be attached?	Assignment Level
Does the element recur each payroll period, or does it require explicit entry?	Recurring
Process the element only once in each payroll period?	Yes
Can a person have more than one entry of the element in a payroll period?	No
Process and pay element separately or with other earnings elements?	Process and pay with other earnings

6. Click **Next**.
7. On the Additional Details page, complete the fields, as shown in this table.

Question	Answer
What is the calculation rule?	Flat Amount
How do you want to derive the amount?	Entered value
What is the time-basis for this element?	Periodically
Is this element subject to proration?	No
Is this element subject to retroactive changes?	No
Use this element to calculate a gross amount from a specified net amount?	No
Should this element reduce regular earnings?	No

8. Click **Next**.
9. Verify the information is correct.
10. Click **Submit**.

## Reviewing an Earnings Element

On the Element Summary page, review the newly created element details for accuracy.

1. Review the basic details for the earnings element, for example Element Name, Classification, and Description.

2. In the Standard Rules section, verify that the element is recurring.
3. Verify that the employment level is assignment level.
4. In the Currency section, verify that the currency is US Dollars.

## Updating an Earnings Element

On the Element Summary page, update the newly created element details.

1. Click **Edit Element**.
2. Select today's date.
3. Click **Continue**.
4. Scroll to the Standard Rules region.
5. In the Entry Options section, select the **Allow multiple entries in same period** option.
6. Click **Save**.
7. In the Element Overview section, select the expand arrow.
8. Expand the Input Value folder.
9. Select **Pay Value**.
10. Select **Edit Element**.
11. Select today's day on the window, and click **Continue**.
12. In the Element Overview section, Select Actions, Create Element Eligibility Criteria.
13. On the **Element Eligibility** name field, enter REGULAR SALARY ELIG.
14. In the Eligibility Criteria section, select **All payrolls eligible**.
15. Click **Save**.
16. Click **Submit**.

## FAQs for Manage Elements

### What's the difference between a recurring and nonrecurring element?

A recurring element has an entry that applies in every pay period until the entry is ended.

A nonrecurring element has an entry that applies in one pay period only. It is only processed once per pay period. The dates of the pay period are determined by the payroll to which the person is assigned.

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#### Note

A base pay element associated with a salary basis must be recurring.

A net-to-gross element must be nonrecurring.

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### **What's an element's skip rule?**

A skip rule is a formula that determines the circumstances in which an element should be processed. If the conditions of the formula are met, then the element is processed. Otherwise the element is skipped from processing.

### **How can I create an element for retroactive processing?**

When an element is subject to retroactive changes, all components for the retroactive element are created automatically. This includes adding the element to the predefined retroactive event group and proration group. You can create your own retroactive event group and proration event group and change the default values for the element in the Manage Element flow.

### **When does an element get processed with a processing option of process once per period?**

An element processes entries only in the first payroll run of each period for this element.

If this option is not available for your localization, you can select a skip rule to process this element once each period.

### **What happens if the Closed for Entry option is selected on an element?**

It prevents all new element entries for the element. Selecting this option will not affect any existing element entries.

Use caution with this feature. When hiring, terminating, or updating assignments, this option will prevent element entry creation for the element, even if the element is used for automatic entries.

### **What happens if I override an element entry that has a runtime default set at the element's definition?**

If you override it, then any subsequent changes to the default value on the element or element eligibility definition will not affect the element entry. However, you can clear your entry if you want to restore the default value.

## **Manage Deduction Ranges**

### **Deduction Ranges: Explained**

Deduction rates and amounts may vary depending on the range in which the earnings balance falls. A deduction range is a table that holds the range of values and associated rates, amounts, or rules to use when calculating a deduction or exemption. For example, a deduction range for a graduated tax might contain two range value rows: one that defines the tax rate for earnings under 50,000 USD and another for earnings above 50,000 USD..

Each localization provides a set of predefined deduction ranges used to calculate statutory and involuntary deductions. You cannot edit predefined deduction ranges. You can add new deduction ranges using the Manage Deduction Ranges task in the Payroll Calculation area. When you create a deduction range, you

specify the legislative data group (LDG) to which the range applies. The new range can then be used when processing deductions for the LDG.

## Range Groups

Each deduction range belongs to a deduction range group used to categorize related deduction ranges. Examples of deduction range groups include city tax information and social insurance information. A set of standard deduction range groups is delivered with the application and available to all legislations. When you create a deduction range, you can select an existing range group or create a new one.

## Associating Deduction Ranges with Calculation Factors

Deduction ranges are building blocks used in the calculation of deductions and exemptions. You associate a deduction range with a calculation factor, which defines the rule for calculating the deduction element for balances in the range table. The deduction range provides the values, but the calculation factor specifies when and how to apply them.

For example, a calculation factor might direct the payroll process to do the following: Calculate the deduction using this deduction range only if the person lives in Region B, and then annualize the calculated result to produce the final deduction amount.

Use the Manage Deduction Group Rules task in the Payroll Calculation work area to view and manage calculation factors.

## Deduction Range Values: Examples

The examples that follow illustrate how to use both static and dynamic deduction range values, and how to override the default calculation type for individual range value rows.

### Static Range

The deduction range for a regional income tax uses a default calculation type of Flat Rate. However, for the lowest and highest incomes, a flat amount applies. For these two ranges, the Flat Amount calculation type overrides the default type, and uses a monetary value rather than a percentage. No database item is specified in the Basis of Range of Values for the deduction range, so the range values are static.

From Value	To Value	Calculation Type Override	Rate or Amount
0	199	Flat Amount	0
200	999		4 (percent)
1000	1999		6 (percent)
2000	999,999,999	Flat Amount	300

### Dynamic Range

The deduction range for a tax exemption uses a default calculation type of Incremental Rate. The first and last range value rows specify the Flat Amount



calculation type, which overrides the default type. The Gross Earnings YTD database item is specified in the Basis of Range Values field, which means that the range values represent a percentage of year-to-date gross earnings. The following sample values define a set of dynamic range values for this deduction range:

From Value	To Value	Calculation Type Override	Rate or Amount
0	.1	Flat Amount	300
.1	.2		10 (percent)
.2	.9		30 (percent)
.9	1	Flat Amount	0

The first range value row defines a flat amount of 300 USD that applies to the first 10 percent of gross earnings. The second row defines a 10 percent rate that applies to the next 10 percent of gross earnings. The third row defines a 30 percent rate that applies to between 20 and 90 percent of gross earnings. The final row defines a flat amount of zero between 90 and 100 percent.

## Deduction Overrides: Explained

A deduction override refers to a value entered on a deduction card that replaces a value defined in a deduction range. For example, an organization might set a default tax rate at the legislative level, and allow the rate to be overridden by a flat amount entered on a personal deduction card at the payroll relationship level.

When the payroll process runs, it checks for deduction card overrides in the following order:

1. Payroll relationship
2. Tax reporting unit
3. Payroll statutory unit

When the process finds an override record, it stops checking and uses the values defined at that level.

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### Note

Some localizations do not support deduction cards for tax reporting units or payroll statutory units.

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## Allowing Overrides on Deduction Cards

Overrides for statutory and involuntary deductions are predefined. You cannot allow new overrides for predefined deduction ranges.

If you create a custom deduction range, you can allow users to override a range value on a deduction card by adding the item to the Overrides Allowed on Deduction Card table on the Create or Edit Deduction Ranges page. You must provide the name to appear on the deduction card for the item. The list of items

available for override varies depending on the calculation type for the deduction range. For example, you can allow users to override the percentage value for a flat rate calculation or the monetary value for a flat amount calculation. The following three override items are available for all calculation types except text:

- **Deduction Range:** Uses the deduction range entered on the deduction card to calculate the deduction amount.
- **Total Amount:** Uses the amount entered on the deduction card as the total deduction amount.
- **Additional Amount:** Adds the amount entered on the deduction card to the calculated deduction amount.

If you allow multiple overrides for the same deduction range, the deduction calculation process applies them in the following priority:

1. Total amount
2. Deduction range
3. Range value component, such as rate or flat amount

### Creating Overrides on Deduction Cards

Use the **Manage Personal Deductions** task in the Payroll Calculations or Payroll Administration work area to create deduction card overrides at the payroll relationship level. If overrides are allowed, the Overrides Allowed on Deduction Cards tab appears in the Component Details section of the Manage Deduction Cards page when you select a deduction component. Click **Create** to define an override. The override value you enter varies based on the type of override item defined in the deduction range, as described in the previous section. For example, you may enter a rate to be used in the deduction calculation or an amount to be added to the calculated amount.

If your localization supports deduction cards at multiple levels, use the **Manage Legal Entity Deduction Records** task in the Setup and Maintenance work area to create deduction card overrides at the payroll statutory unit level. Use the **Manage Legal Reporting Unit Deduction Records** task in the Setup and Maintenance work area to create deduction card overrides at the tax reporting unit level.

## Calculation Types in Deduction Ranges: Explained

The Calculation Type field on the Create or Edit Deduction Ranges page specifies the default type of calculation to use for all deduction range value rows. You can override the default calculation type for individual rows in the Range Values section by selecting a different calculation type in the Calculation Type Override field. The calculation type determines which values you must provide in the Range Values section. For example, if you select Flat Amount as the calculation type, then you must provide a flat amount value.

### Predefined Calculation Types

You can choose from several predefined calculation types, as described in the following table:

Calculation Type	Description
Flat Amount	Uses the specified flat amount as the total deduction amount.
Flat Amount Times Multiplier	Multiplies a flat amount by a multiplier value. If you select this option, you must specify a database item that provides the value of the multiplier.
Conditional Flat Amount	Uses the specified flat amount if the condition defined in the Calculation section is met. For example, a person might qualify for an exemption if their filing status is married or head of household. If you select this option, you must specify a database item that provides the value of the condition.
Flat Rate	Applies the specified rate to the balance. For example, to apply a rate of 10 percent, enter 10.
Incremental Rate	Applies a different rate to portions of the balance. For example, assuming that the balance is 80,000 USD, you could apply a 1 percent rate for the first 20,000 of the balance; a 3 percent rate for the next 30,000, and a 5 percent rate to the next 30,000. This is also referred to as a blended rate.
Standard Formula 1	<p>Calculates the total amount based on the following formula:</p> $y = Ax - Bz$ <p>Where:</p> <ul style="list-style-type: none"> <li>y is the deducted amount.</li> <li>x is the reduced deductible amount.</li> <li>A and B are specified values.</li> <li>z is a factor from a predefined formula. The value defaults to 1.</li> </ul>
Standard Formula 2	<p>Calculates the value based on the following formula:</p> $y = (x - A) \times B + Cz$ <p>Where:</p> <ul style="list-style-type: none"> <li>y is the deducted amount.</li> <li>x is the reduced deductible amount.</li> <li>A, B, and C are specified values.</li> <li>z is a factor from a predefined formula. The value defaults to 1.</li> </ul>
Text	Uses the specified character string as the calculated value.

## Specifying View Objects

You can specify the view objects that define the valid values available to the selected calculation type. A view object is a query result set used to display a list of values. The view objects you can specify vary depending on the calculation

type. For example, if the calculation type is **Conditional Flat Amount**, then you can specify view objects for the condition and flat amount values.

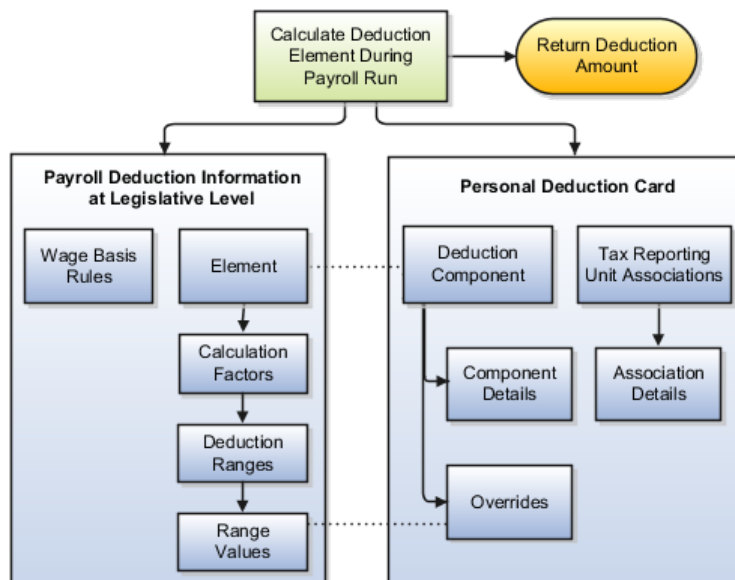
Include the fully qualified path name when you specify a view object, such as: `oracle.apps.hcm.locUS.payrollSetup.details.publicView.UsStatePVO`

## Manage Payroll Deductions

### Payroll Deductions, Elements, and Deduction Cards: How They Work Together

Payroll deductions comprise multiple components that are defined and managed at different levels. When a payroll run processes a payroll deduction element, it retrieves information stored at all applicable levels.

The following figure shows how deduction information at the legislative and personal levels feeds into the deduction calculation process.



### Element Processing

The deduction element's status processing rule drives the calculation, accessing rates and rules defined for the related payroll deduction and values captured on a personal deduction card.

Use the Manage Elements task in the Payroll Calculation work area to view the deduction elements. If an element is associated with a payroll deduction, the deduction name is displayed in the Deductions section on the Manage Element Summary page.

### Payroll Deduction

A payroll deduction comprises the rates and rules used to calculate the deduction amount.

- Wage basis rules define which classifications of earnings to consider when calculating the basis for the deduction element, based on criteria such as a worker's place of residence. The rule is defined at the legislative level, but the context value for the rule is captured on the deduction card.

- Calculation factors associated with the deduction element indicate which deduction range to use when calculating the deduction amount. For example, a calculation factor might identify which set of tax rates to use based on the employee's tax code, as specified on the deduction card. The calculated deductible amount would determine the specific rate to use from that range. A deduction range can also define a processing rule, such as a proration rule for calculating bankruptcy payments.

Use the Manage Deduction Group Rules task in the Payroll Calculation work area to view all wage basis rules, related elements, and calculation factors defined for a particular deduction group. Use the Manage Deduction Ranges task to view deduction ranges and range values.

### **Personal Deduction Card**

A personal deduction card contains person-specific information used to calculate the deduction amount.

- A deduction component on a deduction card typically relates to a deduction element defined at the legislative level. Adding a deduction component to a deduction card creates an entry for the related element.
- Component details, such as tax filing status or social insurance contribution category, are used as input values in the element calculation.
- Rates and rules defined on a personal deduction card override values defined in deduction ranges at the legislative level. For example, a default tax rate may be defined at the legislative level, but an employee qualifies for a special reduced rate, which you enter as an override on their personal deduction card.

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#### **Note**

For some localizations, you can create deduction cards for a specific tax reporting unit (TRU) or payroll statutory unit (PSU) to capture information such as an employer's contribution rate.

- 
- Associations indicate which tax reporting unit is responsible for reporting the deductions. They define how deductions are aggregated and reported.

Use the Manage Personal Deductions task in the Payroll Administration or Payroll Calculation work area to create and edit personal deduction cards.

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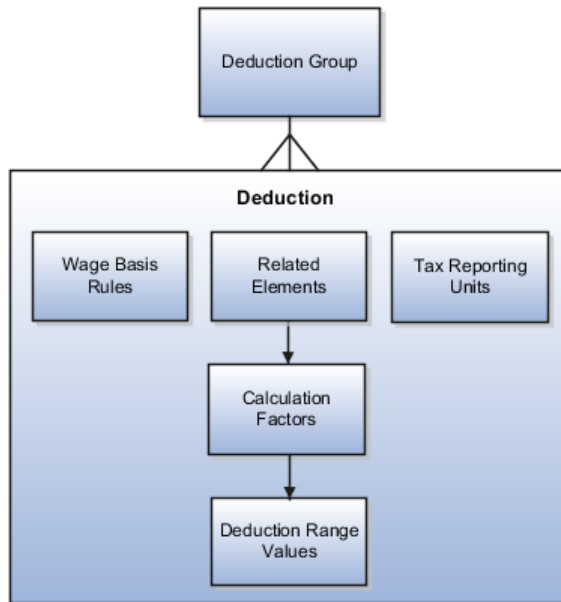
#### **Note**

Each legislation supports a predefined set of deduction card types, which typically includes a statutory deduction card and an involuntary deduction card. Additional cards may be supported to capture information for reporting purposes.

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## **Payroll Deduction Components at the Legislative Level: How They Fit Together**

Deduction information defined at the legislative data group level comprises several different components, including wage basis rules, one or more payroll elements, and rules for calculating the deduction amount. The following figure shows the relationship between these components.



## Deduction Group

Each deduction belongs to a deduction group used to categorize related deductions. Predefined deduction groups include social insurance, taxes, retirement plans, involuntary deductions, benefits, and more. The deduction groups available and their names vary by legislation.

## Deduction

A payroll deduction is a set of rates and rules used in the calculation or reporting of one or more payroll deduction elements. A set of statutory deductions is predefined for each legislative data group and cannot be changed. Involuntary deductions are created automatically when you create an element for an involuntary deduction classification. Use the Manage Payroll Deductions task to view deductions.

## Wage Basis Rules

Wage basis rules determine the earnings that contribute to a deductible amount or, for exemptions, the elements that reduce the amount subject to deduction. For example, wage basis rules might define which classifications of standard and supplemental earnings are subject to a particular tax. If wage basis rules vary based on a factor such as a person's location of residence, then location of residence is defined as a wage basis rule reference. Use the Manage Deduction Group Rules task to create new wage basis rules.

## Related Elements

A deduction is typically associated with one or more elements. The element definition specifies how and when the element should be processed and identifies the input values for the element. A deduction element's processing rule drives the calculation of the element, accessing calculation factors and wage basis rules to derive the deduction amount.

Related elements for statutory deductions are predefined. Related elements for involuntary deductions are created when you create the involuntary deduction

element. Element entries for deduction elements are created automatically when the deduction component for the element is added to a personal deduction card.

### **Calculation Factors**

A calculation factor is a data-driven rule for calculating an element. For example, a calculation factor for an income tax element would identify the deduction range that holds the tax rates to use in the calculation. If tax rates vary based on a factor such as a person's filing status, then filing status is defined as a calculation factor reference. Thus, an element may have multiple calculation factors, one for each unique set of rules and references values. If element calculation involves multiple steps, each step is defined in a separate calculation factor. Calculation factors are predefined for statutory and involuntary deductions, and should not need to be changed. Technical users can create new calculations factors using the Manage Payroll Deductions task, and then modify an element's processing rule to use the new calculation factors.

### **Deduction Range Values**

A deduction range stores calculation rates and rules, which may vary based on the amount subject to deduction. For example, deduction range values for a graduated tax might define a 10 percent tax rate for earnings under 50,000 USD and a 20 percent rate for earnings above 50,000 USD. Predefined deduction ranges are provided for statutory and involuntary deductions. Use the Manage Deduction Ranges task to view and manage deduction ranges.

### **Tax Reporting Units**

At the legislative level, a deduction can be associated with one or more tax reporting units for reporting purposes. These associations do not impact the deduction calculation or aggregation during a payroll run. You associate tax reporting units with specific deduction components on a personal deduction card.

## **Payroll Deduction Components at the Legislative Level: Examples**

Use these examples of an individual income tax deduction and a social insurance deduction to understand how deduction components work together. Each example provides sample values for the following deduction components:

- Deduction group
- References for wage basis rules
- References for calculation factors
- Wage basis rules
- Related elements
- Calculation factors for elements
- Associations for tax reporting

### **Individual Income Tax Deduction**

A particular legislation has a statutory deduction for an individual income tax. The exemption amount for the tax varies based on a person's residential status. The earnings classifications included in the wage basis for the tax vary by geographical region. Thus, references are defined for both the wage basis rules

and the calculation factors. The calculation is a two-step process: calculate the exemption and then calculate the tax amount based on the reduced deductible amount.

- **Deduction group:** Taxes
- **Deduction name:** Individual Income Tax Deduction
- **References for wage basis rules:**

Reference Name	Reference Value
Geographical Region	Mainland
Geographical Region	Territory

- **References for calculation factors:**

Reference Name	Reference Value
Residential Status	Resident
Residential Status	Nonresident

- **Wage basis rules:**

Geographical Region Reference Value	Primary Classification	Secondary Classification	Use in Wage Basis?
Mainland	Standard Earnings	All secondary classifications selected	Y
Territory	Standard Earnings	All secondary classifications selected	Y
Mainland	Supplemental Earnings	Commission	Y
Territory	Supplemental Earnings	Commission	N
Mainland	Supplemental Earnings	Personal Use of Company Car	Y
Territory	Supplemental Earnings	Personal Use of Company Car	N

- **Related element:** Individual Income Tax Processor

The processing rule (a fast formula) associated with this element drives the income tax deduction calculation. It accesses the appropriate calculation factor, based on the resident status reference value and the current step in the calculation process.

- **Calculation factors for Individual Income Tax Processor element:**

Resident Status	Calculation Step	Calculation Method	Deduction Range	Range Values
-----------------	------------------	--------------------	-----------------	--------------



Reference Value				
Nonresident	Calculate exemption amount	None	Tax Exemption Amount for Nonresident	4800
Resident	Calculate exemption amount	None	Tax Exemption for Resident	2000
(None)	Calculate individual income tax	None	Individual Income Tax Rate	0-50000:3% 50000-100000:4% Over 10000: 5%

- **Tax reporting units:** All tax reporting units defined for this legislation can report this deduction. (You associate deductions with a specific tax reporting unit on the personal deduction card.)

### Social Insurance Deduction

The same legislation has a statutory deduction for a social insurance tax. Both the employer and the employee contribute to the social insurance tax, but their contribution rates are different. Calculation of the deduction has several steps:

1. Calculate the base amount for the employee's contribution.
2. Calculate the base amount for the employer's contribution.
3. Calculate the employee's contribution amount.
4. Calculate the employer's contribution amount.

The following component values define this deduction at the legislative level:

- **Deduction group:** Social Insurance
- **Deduction name:** Medical Insurance Deduction
- **References for wage basis rules:** None
- **References for calculation factors:**

Reference Name	Reference Value
Contribution Level	Employee
Contribution Level	Employer

- **Wage basis rules:**

Primary Classification	Secondary Classification	Use in Wage Basis?
Standard Earnings	All secondary classifications selected	Y
Supplemental Earnings	All secondary classifications selected	Y

- **Related elements:** Medical Insurance Calculation element

The processing rule (fast formula) associated with this element drives the social insurance deduction calculation. It accesses the appropriate calculation factor, based on the contribution level reference value and the current step in the calculation process.

- **Calculation factors for Medical Insurance Calculation element:**

Contribution Level Reference Value	Calculation Step	Calculation Method	Deduction Range	Range Values
Employee	Calculate Employee Base Amount	None	Employee Contribution Upper Limit	8000
Employee	Calculate Employer Base Amount	None	Employer Contribution Upper Limit	5000
Employer	Calculate Employee Contribution Amount	None	Employee Contribution Amount	4%
Employer	Calculate Employer Contribution Amount	None	Employer Contribution Amount	3%

- **Tax reporting units:** All tax reporting units defined for this legislation can report this deduction. (You associate deductions with a specific tax reporting unit on the personal deduction card.)

## Wage Basis Rules: Explained

Wage basis rules determine the earnings that contribute to a deductible amount or, for exemptions, the elements that reduce the amount subject to deduction.

### Element Classifications

Each wage basis rule is associated with a primary or secondary element classification. For deduction elements, the classifications identify which types of earnings are subject to the deduction. For exemption elements, the classifications identify which type of earnings reduce the amount subject to deduction.

### References for Wage Basis Rules

A wage basis rule may be associated with up to six references that define the context for the rule. Each reference has a sequence number that determines the order in which it is evaluated for processing relative to other references. For example, if a wage basis rule for a regional tax deduction has references for both county and city, then the county reference should have a higher sequence number than the city so that it will be evaluated first.

The wage basis rules and related references for statutory and involuntary deductions are predefined for each legislation. You cannot edit predefined rules or references.

## Creating Wage Basis Rules

You can create new wage basis rules for existing deductions using the **Manage Deduction Group Rules** task in the Payroll Calculation work area. The process is summarized below:

1. On the Manage Deduction Group Rules page, select the deduction group to which the new rule applies.
2. In the Deduction Group Overview section, click the deduction group name and then click **Wage Basis Rules**. If wage basis rule references have been defined, click the reference.
3. In the Wage Basis Rules section, click **Create**.
4. Select the deduction to which the rule applies.
5. Select the primary and secondary classifications to be used in the wage basis for the deduction.
6. Provide the reference value for the rule, if applicable.

## Wage Basis Rules: Example

The following example illustrates how to define a set of wage basis rules for a tax deduction when the earnings included in the wage basis vary depending upon where a person lives.

### Taxable Earnings by Region

Brittany is a waitress who receives a salary of 5,000 USD each month plus tips. Brittany is subject to an income tax that is calculated at the rate of 10 percent of the deductible amount, which may vary based on where an employee lives. In Dover County, tips are included in the deductible amount, but in Smith County, tips are not included. This table shows the tax calculations that apply for each region.

Region	Earnings in Salary	Earnings in Tips	Deductible Amount	Deduction Amount
Dover County	5000	50	5050	505
Smith County	5000	(50 - Exempt)	5000	500

The wage basis rules for this tax deduction are as follows:

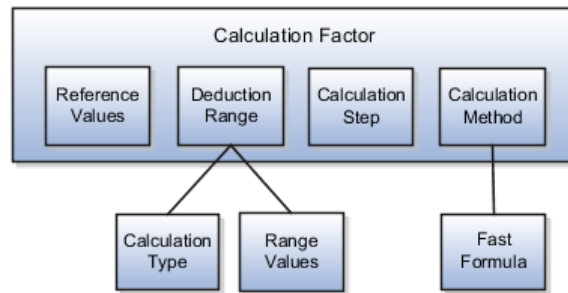
Region (Reference Value)	Primary Classification	Secondary Classification	Use in Wage Basis?
Dover County	Earnings	Salary	Y
Dover County	Earnings	Tips	Y
Smith County	Earnings	Salary	Y
Smith County	Earnings	Tips	N

## Calculation Factors: Explained

A calculation factor defines a data-driven rule for calculating a deduction or exemption element. For example, a calculation factor for a tax deduction element

might define a context reference (such as a city or state), the deduction range value (such as a 4 percent tax rate on balances under 50,000), and optionally a calculation method and calculation step. Some elements may have a large number of calculation factors, one for each unique set of rules, ranges, and references values. The element calculation process determines which calculation factor to use based on the reference values and calculation rules of the element being processed. Calculation factors are predefined for statutory and involuntary deductions, and should not need to be changed.

Aspects of a calculation factor are shown in the following figure:



### Reference Values

A calculation factor may be associated with up to six references that define its context. For example, calculation of a social insurance deduction might vary based on a person's age and employment status. Each reference has a sequence number that determines the order in which it is evaluated for processing relative to other references.

To view the references associated with a calculation factor, click the deduction in the Deduction Overview pane on the Manage Payroll Deductions page.

---

### Note

The calculation factors and related references for statutory deductions are predefined for each legislative data group. You cannot add or edit references for predefined deductions.

---

### Deduction Range

Each calculation factor is associated with a deduction range that defines the calculation type, such as flat amount or flat rate, and a set of calculation rates and rules, which may vary based on the amount subject to deduction. For example, a deduction range for a graduated tax might define a 10 percent tax rate for earnings under 50,000 USD and a 20 percent rate for earnings above 50,000 USD. Predefined deduction ranges are provided for statutory and involuntary deductions. Use the Manage Deduction Ranges task to view and manage deduction ranges.

### Calculation Step

A calculation step is a label you assign to a calculation factor to identify its role in a complex calculation. For example, when calculating an income tax deduction, the process might first calculate the allowance, then any exemption amount, and then apply the tax rate to the reduced deductible amount. For such deductions, you can define multiple elements to be processed separately

or define a single element with multiple calculation steps, each defined in a separate calculation factor. You can assign the same calculation step to more than one calculation factor. Calculation steps are optional.

### Calculation Method

A calculation method references a single fast formula. It is an optional component of a calculation factor. Calculation methods operate at a higher level than the calculation types defined in the deduction range. They provide a wrapper around the calculation of a deduction by retrieving values from a deduction range, applying a fast formula, and returning the final deduction amount for the current run. For example, if the calculation method is set to Cumulative, which references the Core Cumulative fast formula, then the calculation process returns the total deduction amount as a cumulative year-to-date amount.

## Calculation Factors for Payroll Deductions: Examples

The following examples illustrate how calculation factors are used to calculate different types of deductions.

### Social Insurance Deduction

Employers in many countries deduct social insurance payments from employees and also make contributions. Employee and employer rates are typically different. Such deductions often have wage limits.

To process this type of deduction, you might create a social insurance deduction processor element with the following calculation factors:

Employer or Employee Code (Reference Value)	Calculation Method	Calculation Step	Deduction Range	Range Values
Employee	None	Calculate Social Insurance Employee Rate	Social Insurance Employee Rate	4 percent flat rate
Employer	None	Calculate Social Insurance Employer Rate	Social Insurance Employer Rate	2 percent flat rate
Employee	None	Calculate Social Insurance Employee Wage Limit	Social Insurance Employee Wage Limit	100,000 flat amount
Employer	None	Calculate Social Insurance Employer Wage Limit	Social Insurance Employer Wage Limit	100,000 flat amount

### National Income Tax Deduction Using Calculation Steps

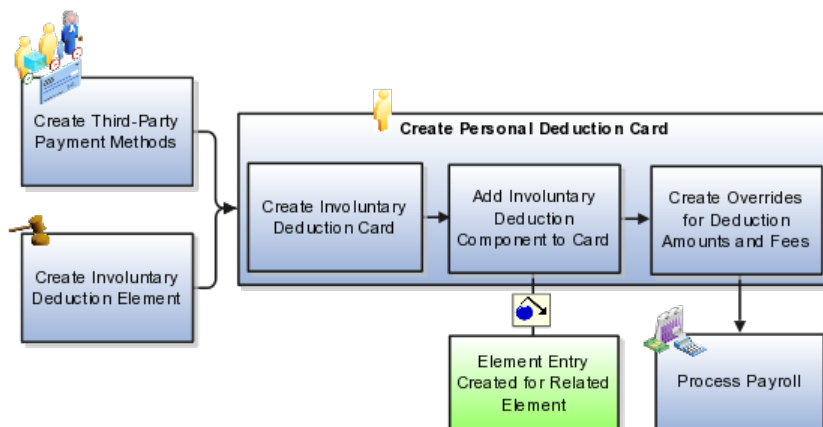
A national income tax deduction involves the multiple steps. First, it calculates the allowance, then any exemption amount, and then it applies the tax rate. The following table shows a subset of calculation factors that might be associated with a tax processor element.

Filing Status (Reference Value)	Calculation Method	Calculation Steps	Deduction Range	
Single	None	Calculate Region A Allowance - Single	Region A Allowance - Single	10,000 flat amount
Single	None	Calculate Region A Exemption Amount - Single	Region A Exemption - Single	0 flat amount
Single	None	Calculate Region A Regular Rate - Single	Region A Rate - Single	7 percent flat rate
Married	None	Calculate Region A Allowance - Married	Region A Allowance - Married	10,000 flat amount
Married	None	Calculate Region A Exemption Amount - Married	Region A Exemption - Married	1,000 flat amount
Married	None	Calculate Region A Regular Rate - Married	Region A Rate - Married	6 percent flat rate

## Creating Involuntary Deductions: Overview

Oracle Fusion Global Payroll supports a set of involuntary deduction types, such as bankruptcy orders, garnishments, child support payments, tax levies, and educational loans. Global Payroll provides element templates for each involuntary deduction type supported by your localization. You can create involuntary deduction elements as needed using these predefined templates. You can then add the corresponding involuntary deduction component to a personal deduction card so the deduction will be processed during a payroll run.

This figure shows the steps involved in creating an involuntary deduction.



### Create Third-Party Payment Methods

Use the Manage Third-Party Payment Methods task in the Payment Distribution work area to create payment methods for all external payees. For example, you

might set up direct deposit for the payee of a child support deduction. A payee can be either a person or an organization.

- If you create a third-party person payee, you must select the payroll relationship for the employee whose pay is subject to the deduction. This makes the person payment method available for selection as a payee on the employee's involuntary deduction card.

For example, you might set up electronic file transfer (EFT) for Mary Smith, payee of a child support deduction for John Smith. When you create the person payment method, you select the payroll relationship for John Smith. When you add the child support order to John Smith's involuntary deduction card, you can select Mary Smith in the Order Amount Payee field.

- If you create a third-party organization payee, you must select External Payee in the Party Usage Code field on the Create Third-Party Organization Payee page. This makes the organization payment method available for selection as a payee on the employee's deduction card.

For example, you might set up an EFT payment method for a County Sheriff that receives a processing fee on garnishment payments. When you create the organization payment method, you designate the County Sheriff as an External Payee. When you add the garnishment order to the employee's involuntary deduction card, you can select the County Sheriff in the Processing Fee Payee field.

You can create a third-party organization payee for a court or other issuing authority, even if the organization is not being paid. This allows you to record address and contact information that you can later associate with the deduction on the involuntary deduction card.

For both types of third-party payment methods, you must select a previously defined organization payment method to use. (Use the Manage Organization Payment Methods task in the Payment Distribution work area to define the payment source for third-party payments, if not already defined.)

## **Create an Involuntary Deduction Element**

An involuntary deduction element must be defined for each involuntary deduction type you need to process. Involuntary deduction elements can be created during initial setup and as the need arises later. You can create multiple elements for the same involuntary deduction type if processing information or other details vary. For example, court orders from different jurisdictions might have different processing rules. The involuntary deduction element creation process is summarized here. You can skip this task if an element has already been defined for the type of involuntary deduction you want to add to a person's deduction card and the element's processing rules meet your needs.

1. Using the Manage Elements task in the Payroll Calculation work area, create a new element with a primary classification of Involuntary Deduction and a secondary classification that reflects the deduction type, such as tax levy or child support. (Secondary element classification names vary by localization.)
2. Answer the questions on each page of the Create Element flow. For example, you must indicate whether or not to create arrears if the full

deduction amount cannot be taken. A predefined set of rules, plus the answers you provide, determine which earnings contribute to the deductible amount and how the deduction will be processed.

3. Define eligibility for the element. To define open eligibility, enter a name for the element eligibility record but do not specify any criteria.
4. Define costing for the element as appropriate.

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#### Note

To define costing for related elements, you must open and edit each element individually.

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When you save the element, the application automatically creates all associated balances, feeds, input values, formulas, and related elements required for payroll processing. It also creates a deduction component that you can add to an employee's involuntary deduction card. Fee rules and proration rules are predefined in deduction ranges, based on statutory rules that vary by localization. Rules for core payroll are as follows:

- **Fee rule:** Deduct the fee first, before calculating and paying the deduction amount.
- **Proration rule:** First come, first serve. If a person has multiple orders and there is insufficient money to pay them all, deductions are paid in order by the date they were received, as recorded on the deduction card. (Oldest is paid first.)
- No fee amounts or protected pay amounts are predefined for core payroll. You can enter these amounts as overrides on the involuntary deduction card.

### Create an Involuntary Deduction Card

Using the Manage Personal Deductions task in the Payroll Administration or Payroll Calculation work area, search for and select a payroll relationship. Create a new deduction card of the type Involuntary Deductions.

### Add the Involuntary Deduction Component to the Deduction Card

On the Manage Deduction Cards page:

1. Create a deduction component with the same name as the previously defined involuntary deduction element.

Adding the involuntary deduction component to the card automatically creates an element entry for the related deduction element.

2. If the deduction card will include more than one involuntary deduction component, you can specify the order in which the deductions should be processed in the Subprocessing Order field. For example, if you set the Subprocessing Order to 103 for a child support deduction and set it to 104 for a court order, the payroll run processes the child support deduction



before the court order. By default, involuntary deduction elements are processed in order by date received; the oldest is processed first.

3. Enter a reference code to uniquely identify this deduction, such as a court order number, case number, or other identifier provided by the issuing authority.
4. Complete the fields on the Deduction Component Details tab.
  - In the Involuntary Deduction Payment Details section, select all payees for the deduction. The payee fields display all third-party person payees associated with this payroll relationship and all external payees defined for your legislative data group.
  - In the Involuntary Deduction Rules section, specify the date the involuntary deduction order was received, the issuing authority (such as a court), the frequency of the deduction, and any other pertinent information.

---

#### Note

Use the Frequency field to specify how often the deduction should be taken, such as monthly or weekly, regardless of the payroll frequency. If you leave the Frequency field blank, the application uses the payroll frequency.

---

You can add multiple involuntary deduction components for the same or different types. For example, you could add two child support and one garnishment components to the same deduction card. Assign each component a unique reference number and, optionally, specify the subprocessing order.

### Create Overrides for the Deduction Amounts

You define the order amount by creating an override on the deduction card. You can also create overrides for fees and other amounts used in the calculation. These overrides replace default values defined in deduction ranges at the legislative level. The default order amount for an involuntary deduction is typically zero.

The process of creating overrides is summarized here:

1. On the Overrides Allowed on Deduction Card tab, create an override for Order Amount (Rate) or Order Amount (Amount).

For example, if you specified a frequency of monthly in the component details, enter the amount to deduct each month, regardless of the payroll period; the application automatically calculates the correct amount to deduct in each payroll run. If you did not specify a frequency, this amount will be deducted at the payroll frequency defined for the payroll relationship.

2. Create additional overrides, as needed, for fees, protected pay amount, minimum and maximum withholding amounts, and other values applicable to this deduction.

Make sure that you have selected a payee on the component details for each fee override you create.

## Process the Payroll with Deductions

During a payroll run, the status processing rule for the deduction element calculates the correct deduction amount based on rules predefined for the deduction type plus information defined on the deduction card.

### Creating Overrides for Involuntary Deductions: Critical Choices

You define the order amount for an involuntary deduction by creating an override on the person's involuntary deduction card. You can also create overrides for fees and other amounts used in the calculation. These overrides replace default values defined in deduction ranges at the legislative level.

#### Overrides Allowed on Deduction Card

The overrides allowed on a deduction card may vary by legislation, but typically include the items described in this table.

---

#### Note

For most overrides, you can create either an amount or a rate override. Create a rate override if you want the application to calculate the deduction amount as a percentage of available pay. For example, to define a rate of 20 percent for the order amount, add an Order Amount (Rate) override and enter 20 in the Rate field.

---

Override Name	Description
Order Amount	Rate or amount paid to the Order Amount Payee based on the frequency you specified.  For example, if you specified a frequency of monthly in the component details, enter the amount to deduct each month, regardless of the payroll period; the application automatically calculates the correct amount to deduct in each payroll period. If you left the Frequency field blank, this amount will be deducted at the payroll frequency defined at the terms or assignment level.
Organization Fee	Rate or amount paid to the Organization Fee Payee each time the deduction is processed.
Person Fee	Rate or amount paid to the Person Fee Payee each time the deduction is processed.
Processing Fee	Rate or amount paid to the Processing Fee Payee each time the deduction is processed.
Initial Fee	Rate or amount paid to Processing Fee Payee the first time this deduction is processed.
Maximum Withholding Amount and Minimum Withholding Amount	Maximum and minimum rates or amounts that can be withheld in one payroll processing period for this deduction.
Maximum Withholding Duration	The number of days after the Date Received that the order is valid. For example, a court order might only be valid for 90 days after the date issued.

Protected Pay Amount	Amount of the employee's pay that is exempt from this deduction. Only pay exceeding this amount will be included in the deductible amount (available for the deduction).
Exemption Percentage	Percentage of the employee's pay that is exempt from this deduction.

## Involuntary Deduction Processing: Examples

Use these examples to understand how involuntary deductions are processed in different scenarios for core payroll. Processing rules may vary by legislation or legal authority issuing the order for the deduction.

### Involuntary Deduction Has Initial Fee and Processing Fee

Scenario: A US employee is issued a court order for a monthly garnishment for 500 USD. The order is subject to a 10 USD one-time initial fee and a 10 USD monthly processing fee, which are both paid to the agency responsible for administering the account and forwarding payment to the recipient.

Involuntary Deduction Card Setup: Add a deduction component for a garnishment and then:

1. Select the **Order Amount Payee** and the **Processing Fee Payee**. (The processing fee payee is also the initial fee payee.)
2. Set the **Frequency** to monthly.
3. Create an **Order Amount** override, and set the amount to 500.
4. Create a **Processing Fee Amount** override, and set the amount to 10.
5. Create an **Initial Fee Amount** override, and set the amount to 10.

Payroll Run Results:

- The amount of the employee's pay subject to deduction is 1000 USD.
- During the first monthly payroll after the court order is received, both the initial fee amount and the processing fee are deducted, for a total deduction amount of 520 USD.
- In subsequent payroll runs, only the processing fee is deducted, so the total deduction amount is 510 USD.

### Deduction Amount Exceeds Protected Pay Amount

Scenario: A UK employee is issued a court order in the amount of 100 GBP per month. However, protected pay rules defined for the deduction require that the employee take home at least 700 GBP, after all deductions.

Involuntary Deduction Card Setup: Add a deduction component for a court order and then:

1. Select the **Order Amount Payee**.
2. Set the **Frequency** to monthly.
3. Create an **Order Amount** override, and set the amount to 100,

4. Create a **Protected Pay Amount** override, and set the amount to 700.

Payroll Run Results:

- The amount of the employee's pay subject to the deduction is 750 GBP.
- A 100 GBP deduction amount would leave only 650 GBP for the final pay amount. Therefore, only 50 GBP is deducted for the month.
- The remaining balance of 50 GBP is not placed in arrears, based on processing rules defined for this deduction.

### Employee Has Multiple Assignments and Payrolls

Scenario: An employee has 2 assignments, both for the same payroll relationship, and is assigned to 2 different payrolls. One of the assignments is on a weekly payroll, and the other assignment is on a monthly payroll. The employer receives a court order to deduct 200 USD per month from the employee's wages. The court order amount must be deducted from all available money, regardless of the payroll. If the total order amount cannot be deducted from the first payroll run, then the remaining balance must be deducted from one or more subsequent runs during the month, until the full amount is paid.

Involuntary Deduction Card Setup: Add a deduction component for a court order and then:

1. Select the **Order Amount Payee**.
2. Set the **Frequency** to monthly.
3. Create an **Order Amount** override for 200 USD.

Payroll Run Results:

- During the first weekly payroll run, only 50 USD can be deducted, leaving an amount owed of 150 USD for the month.
- When the next weekly payroll is run, no deduction can be taken due to insufficient pay. The balance for the month remains 150 USD.
- The monthly payroll runs before the next weekly payroll is run. The remaining 150 USD owed for the deduction is taken during the monthly payroll run.
- No money is deducted during the subsequent weekly payroll runs for this month.

---

#### Note

If a person has two assignments for different payroll relationships, they would typically be issued two different court orders, one for each employment. In this case, you would add each court order to a different deduction card.

---

### Multiple Orders Exist with Different Protected Pay Amounts

Scenario: A UK employee has 3 court orders, and each has a different protected pay amount.

Deduction Card Setup: Add 3 deduction components to the employee's deduction card. Set the frequency of each one to monthly. Define protected pay and order amount overrides for each as shown in this table.

Involuntary Deduction	Protected Pay Amount	Order Amount	Date Received
Child Support 1	500	1000	23 January 2012
Child Support 2	600	1100	2 February 2012
Child Support 3	1000	1200	2 February 2012

#### Payroll Run Results:

The net amount available for involuntary deductions in the payroll run is 2000 GBP. Based on the processing priority defined for child support payments, the payroll run processes the involuntary deductions in order by date received.

- Child Support 1 is paid in full, leaving 1000 GBP available for other deductions.
- Child Support 2 is paid an amount of 400 GBP (1000 less protected pay of 600).
- Child Support 3 is not paid. The total amount is placed in arrears, based on processing rules defined for the deduction.

### FAQs for Manage Payroll Deductions

#### How do I view and manage calculation factors?

Select the Manage Payroll Deductions task and open the deduction. In the Deduction Overview section, expand the Related Elements node and then expand the Calculation Factors node to display a list of all calculation factors associated with the element. You can create new calculation factors and edit existing ones that have an update status of Unlocked. You cannot edit predefined calculation factors. Note that if you create a new calculation factor, you must edit the element's processing rule (a fast formula) to use the new factor.

#### Why can't I create payroll deductions?

Oracle Payroll provides a set of predefined statutory deductions. You can view predefined deductions from the Manage Payroll Deductions page, but you cannot create new deductions. You can create new involuntary deduction elements using the Manage Elements task. The predefined involuntary deduction element templates automatically create a payroll deduction object and associated deduction component when you save the involuntary deduction element. You can add deduction components to a personal deduction card using the Manage Personal Deductions task. Adding a deduction component to a deduction card creates an element entry for the related deduction element.

### Add Eligibility Rules for Predefined Elements

#### Element Eligibility: Explained

Element eligibility determines which people are eligible for an element. To determine eligibility, you assign element eligibility criteria to the components that persons must have to receive entries of the element. While some elements may represent compensation, deductions, and equipment available to all persons, many elements are available only to certain groups of persons. For

example, your enterprise might provide company cars only to persons in the Sales Department. Eligibility criteria rule out the possibility of persons getting element entries by mistake. For example, you might want to give a production bonus only to those persons who work full time in Production and are on the weekly payroll. To do this you would define eligibility criteria for the element Production Bonus and the combination of the Production organization, the Full-Time assignment category, and the Weekly payroll.

## Eligibility Criteria

Element eligibility can be assigned by many different criteria.

- All payrolls or for specific payrolls
- Payroll statutory unit
- Legal employer
- Payroll relationship type
- Department in which the person works
- Location of person's office
- Job, for example, Associate Professor or Secretary
- Grade
- Groups to which the person belongs. You set up all the groups that are appropriate for your enterprise. For example, you could decide to group persons by company within a multi-company enterprise, and by union membership.
- Position, which is a class of job performed in a particular organization, for example, Associate Professor of Chemistry, or Finance Department Secretary.

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### Note

In order to enter an element for a worker, you must define element eligibility for every element. This must be done for predefined elements and those you define. If you want the element to be available to all workers, you can save the element eligibility record with no criteria selected. This is the usual practice for compensation and benefit elements where you determine eligibility using eligibility profiles.

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## Multiple Rules of Eligibility

You can define more than one eligibility criteria for each element but there must be no overlap between them. For example, you could create one criteria for the combination of grade A and the job Accountant. However, you could not create one criteria for grade A and a second for the job Accountant. This would imply that an accountant on grade A is eligible for the same element twice. If you have more than one criteria for an element, you can enter different default values, qualifying conditions, and costing information for each eligibility group.

## Maintaining Element Eligibility: Explained

Element eligibility rules always control element entries.

After you have used an element you can make the following changes to the eligibility rules:

- Change the input value default values and validation.  
  
These changes affect all new entries. Changes to run time defaults affect existing entries. The system also uses the new validation rules to check any updates you make to existing entries.
- Date-effectively end all of the rules that apply to an element and define a new set of rules, which are effective from a later date. For example, suppose you have defined eligibility for a company car based on grade. Following a change of policy you must now define eligibility based on job.
  - You will not be allowed to end the element eligibility if any nonrecurring entries exist at the date you want to end the rule. You must delete existing entries before you end the element's eligibility.
  - You can end the element eligibility if recurring entries exist. Any existing entries will be ended automatically when you end the element's eligibility.
- Change the qualifying conditions of age and length of service that persons must meet to be eligible for the element.

## Define Events

### Payroll Event Groups: Explained

A payroll event group is a group of types of data changes that trigger retroactive event notifications or prorated calculation of a person's earnings.

There are two types of payroll event groups:

- Proration
- Retroactive

#### Proration

Using proration, you can calculate proportionate earning and deduction amounts whenever payroll-relevant data is changed during a payroll period, for example, if a person joins or leaves an organization or if a person's pay grade changes during a payroll period.

If you want to prorate an earnings element, such as basic salary, assign a proration event group to it containing the proration points that affect a person's salary. When you define the event group, you select the events that activates proration calculation, such as changes to:

- Pay grades or grade rates
- Pay scales and progression points
- Hourly or annual pay rates

- Working hours
- Allowances or deductions

### Retroactive

Retroactive processing ensures that your payroll run for the current period reflects any backdated payments and deductions from previous payroll periods. A retroactive event group defines the types of changes that trigger a retroactive event notification.

Within a retroactive event group, select the events that produce notifications if a backdated change occurs. Specify the entity, update type, and attribute, such as the examples provided in the following table.

Entity	Update Type	Attribute
Element Entry Value	Correction	SCREEN_ENTRY_VALUE
Element Entry	Update	EFFECTIVE_START_DATE
Element Entry	Update	EFFECTIVE_END_DATE
Element Entry	Logical Date Change	
Element Entry	Insert	
Element Entry	Delete Changes	

## Define Payment Methods

### Bank, Branch, and Account Components: How They Work Together

Banks, branches, and accounts fit together on the premise of the Bank Account model. The Bank Account model enables you to define and keep track of all bank accounts in one place and explicitly grant account access to multiple business units, functions, and users. This eliminates the redundant duplicate bank account setup under different business units when these business units share the same bank account.

#### Banks

Creating a bank is the first step in the bank account creation. The user can search for existing banks, view and update them, or create new banks. You can create a new bank from an existing party. The option to create from an existing party is implicitly implemented by the matching option. The option is available only after the existing party has been found with the same bank. If you choose the matching option, the page repopulates the information from the matched party.

#### Branches

Once you have created your bank, the next step is create a branch or branches associated to the bank. The matching option is also available when creating branches. To create a new branch without using the matching option, manually enter in the information required. You can define other branch-related attributes in the page. If you do not use the matching option when an existing party is found, a branch with the same party name is created.



## Accounts

Once the bank and branch are created, you can proceed to the bank account setup. Select the bank branch you want to associate to your bank account. Assign the owner of the bank account. There are four areas associated to defining the account: general information, control of the account, security access to the account, and business unit assignment. If this is a Payable or Receivable account, the accounts are identified by business unit, and if a Payroll account, by legal entity.

## Creating Accounts: Points to Consider

Banks, branches and accounts fit together on the premise of the Bank Account model. The Bank Account model allows you to define and keep track of all bank accounts in one place and explicitly grant account access to multiple business units, functions, and users. Consider the following when you set up bank accounts:

- Assigning a unique general ledger cash account to each account and use it to record all cash transactions for the account. This will facilitate book to bank reconciliation
- Granting bank account security; bank account security consists of bank account use security, bank account access security, and user and role security.

### Account Use

Account use refers to accounts created for Oracle Fusion Payables, Oracle Fusion Receivables and Oracle Fusion Payroll. When creating an account to be used in one or more of these applications you must select the appropriate use or uses.

### Account Access

Payables and Receivables account access is secured by business unit. In addition to selecting the appropriate application use or uses, one or more business units must be granted access before the bank account can be used by Payables and Receivables. Only business units who use the same ledger as the bank accounts owning legal entity can be assigned access

### User and Role Security

You have the option to further secure the bank account so that it can only be used by certain users and roles. The default value for secure bank account by users and roles is No. In Payables and Receivables even if the secure bank account by users and roles is no, you must have the proper Multi-Organization Access Control (also known as MOAC) to access a bank account. If the secure bank account by users and roles is set to Yes, you must be named or you must carry a role that is named expressly on the bank account in order to use it.

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### Note

The security role Bank and Branch Management Duty is used to set up banks and branches.

The security role Bank Account Management Duty is used to set up accounts.

---

## Entering Bank Information for Personal Payment Methods: Critical Choices

Bank, branch, and bank account information is shared across multiple applications. For example, if you add an employee's bank details for expense payment, the same bank details are available for managing electronic funds transfer (EFT) payment details for that employee. Who enters bank information depends on how security is configured at your site.

The configuration choices are:

- Enter bank information centrally
- Enter bank information on the Manage Personal Payment Methods page

### Entering Bank Information Centrally

By default, only cash managers can enter banks and branches. They use the Set Up Bank, Branches, and Accounts task list in the Setup and Maintenance work area.

A web service is also available to migrate personal payment method information, including employee bank account details, from external sources.

### Entering Bank Information on the Manage Personal Payment Methods Page

By default, on the Manage Personal Payment Methods page, employees can enter their own bank account details for existing banks and branches, but they cannot create new banks and branches. Similarly payroll managers, payroll administrators, and payroll coordinators can enter account details for the employees they handle, but they cannot create new banks and branches. If you want to enable the create option for any of these roles, you must add the Bank and Branch Management duty role to the relevant role.

It is not possible to edit bank and branch details on the Manage Personal Payment Methods page. You must use the Set Up Bank, Branches, and Accounts task list to edit existing banks and branches.

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#### Important

If you enable employees or other roles to create banks and branches, provide guidance to use unique names and follow appropriate naming conventions.

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## Organization Payment Methods: Explained

Organization payment methods identify the payment type and the currency to use for payroll payments to workers and for disbursing employee deductions to third parties.

You must define at least one organization payment method for each type of payment and currency that you use to disburse wages and other compensation to your employees. You can also define rules for validating or processing the distribution of payments when you offer more than one option.

A typical configuration is to have one organization payment method for each combination of legislative data group, payment type, and currency.

## Payment Types

Any payment method that you define must belong to one of the payment types that your enterprise supports.

Each payroll must have at least one valid organization payment method for each payment type available to employees on that payroll. There may be more than one payment method with the same payment type.

The most common payment types are:

- Electronic funds transfer (EFT)
- Check
- Cash

Your enterprise may support a different range of types that are appropriate for your localization. For example, some localizations do not allow cash, some do not support checks, and very few support postal money orders.

The names of payment types can vary by localization. For example, in the US, the payment type for EFT is NACHA; in the UK it is BACS, and in Australia it is BECS.

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### Note

When you select the EFT payment type, you can enter EFT information at the organization payment method level, the payment source level, or both. Entries at payment source level take priority over entries at organization payment level.

---

## Payment Sources

Payment sources associate bank accounts and other sources of funds with organization payment methods. If you are using Oracle Fusion Global Payroll for payroll processing, each organization payment method that is in use must have at least one valid payment source.

For check and EFT payment methods processed by Global Payroll, the payment source must be associated with an active bank account defined in Oracle Fusion Cash Management. If an organization payment method is associated with multiple payment sources, then the payment method rules determine which payment source is to be used for each disbursement.

You can use the same bank account as a payment source in more than one organization payment method. For example, one checking account may be used to pay both check and EFT payments. The application will not prevent specifying the same name for different payment sources, but it is best practice to use different naming for each occurrence.

When you have one organization payment method for each combination of legislative data group and payment type, you can use payment rules to determine the appropriate payment source based on tax reporting unit. However, there are several reasons why a company might need multiple organization payment methods and multiple payment sources, such as these examples:

- Company X has only one tax reporting unit, but prefers to pay its executive staff from a separate bank account for security and confidentiality.
- Company Y must comply with state laws and union agreements requiring that checks are drawn on an in-state bank. It uses different organization payment methods for each bank used to pay people based upon their locale.
- Company Z may use different currencies to pay foreign nationals and expatriates working in a different country than their home.

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**Note**

You can use the same organization payment method for both employee payments and third-party payments, but you must define different payment sources for each of them and name them differently.

---

**Payment Rules**

The first payment source defined is the default payment source. If you add more payment sources, you can add subsidiary information as payment rules. For example, if you have multiple tax reporting units, you can specify which payment source to use for each tax reporting unit.

Having a default payment source ensures that employees are paid if there is a change in tax reporting unit. For example, Company A has multiple independent franchises, each with its own tax reporting unit. If a franchise sells, it will have a new tax reporting unit number, and the payment rule will fail. Instead of issuing errors, payment is made using the default payment source.

You might rather not specify a default payment source when payments cannot be made from the specified payment source in the payment rule. For example, Company B has 30 bank accounts and is very careful not to comingle funds. They leave the default unspecified to instead receive notifications that they can resolve manually.

**Default Payment Methods**

You can define as many payment methods as required for your enterprise. When you create a payroll, you can select which of these methods are valid for employees assigned to that payroll. You select one method as the default method for the payroll. The default payment method is used to determine how to disburse a payment when an employee does not have any personal payment methods specified.

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**Note**

The application does not support EFT payment methods as default payment methods because each payee must have a personal payment method with account information to know where the money will be deposited.

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**Relationship to Other Objects**

You select organization payment methods when defining other objects, such as payroll definitions and other payment methods. Organization payment methods

are only available for selection if they are effective as of the date the object is being defined or updated.

For example, if you create a payroll definition effective as of 4/1/2012 and want to associate a particular organization payment method as the default, the organization payment method must have an effective start date on or before 4/1/2012. Similarly, when updating or correcting objects to change the organization payment method, the organization must have an effective start date on or before the effective date of the change.

The functional relationship of organization payment methods with other objects is described in this table.

Object	Functional Relationship
Personal Payment Method	<p>Associates a person to a particular organization method. If the payment type is EFT, the person's bank information is included in the personal payment method.</p> <p>Employees manage personal payment methods from their portrait. Payroll managers, coordinators, and administrators use the Manage Personal Payment Methods task on the Payment Distribution work area.</p>
Third-Party Payment Method	<p>Enables separate payment information for payments to third parties who are not on the payroll.</p> <p>Payments to third parties, such as garnishments or other involuntary deductions, are typically check payments processed separately from the payroll.</p> <p>To manage third-party payment methods, payroll managers and administrators use the Manage Third-Party Payment Methods task on the Payment Distribution work area.</p>
Payroll Definition	<p>Establishes the default payment method for payments to employees who have no personal payment method defined.</p> <p>To manage payroll definitions, payroll managers and administrators use the Manage Payroll Definitions task on the Payroll Calculation work area.</p>
Run-Type Payment Method	<p>Overrides a payroll's default payment method for payments to employees with no personal payment method defined.</p> <p>For example, your regular payroll is by EFT but you issue check bonuses once a year. Using the Separate Payment run type, the payment method will overwrite the one of the payroll. However, if a personal payment method of type EFT has been defined for any employee on the payroll, the application will use the personal payment method instead.</p> <p>To manage run type payment methods, payroll managers and administrators use the Manage Run Types task on the Payroll Calculation work area.</p>

## Setting Up Payment Sources in Organization Payment Methods: Worked Example

This example demonstrates how to set up payment sources when defining organization payment methods to be used in Oracle Fusion Global Payroll for payroll processing.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
How many organization payment methods are needed?	Two methods to pay employees by check and electronic funds transfer (EFT), and one method to pay external third-party consultants by check.
How many payment sources are needed?	One payment source for each of organization payment method to pay employees, and two payment sources for the organization payment method to pay external third-party consultants.
How many bank accounts will be used?	One for each payment source.
What payment method rules will be used?	Rules for in-state bank accounts used to pay third-party consultants.
Is notification required to alert the source financial institution before processing EFT payments?	Yes. Ten days before EFT payments to executive employees

In this example, the InFusion US company pays its employees by check and EFT payments. Two bank accounts have been set up for funds used to pay the executive staff and the regular employees separately. The company occasionally distributes payments to external third-party consultants, but must comply with state regulations and pays them from two different banks based on their tax reporting unit.

---

### Note

The available payment types for organization payment methods may be limited by the legislation.

---

### Prerequisites

This worked example assumes that the following prerequisites of organization payment methods have already been set up:

1. The primary ledger is set up in Oracle Fusion General Ledger and is available for use.
2. The banks, branches, and account information to use as the payment sources are set up in Oracle Fusion Cash Management and are available for use.
3. The legal entity associated with the legislative data group has been assigned to a general ledger.
4. Tax reporting units have been set up and are available for use.

## Setting Up Organization Payment Methods

Perform the following steps three times, once for each of the three organization payment methods.

1. In the Payment Distribution work area, click **Manage Organization Payment Methods**.
2. In the Search Results section, click **Create**.
3. Select the legislative data group, for example, InFusion US LDG.
4. Select the date when you want this payment to start being available for use, and then click **Continue**.
5. In the Basic Details section, complete the fields as shown in this table, and then click **Save**.

Field	Non-Executive Value	Executive Value	Consultant Value
Name	Employee Payroll Check	Executive Payroll Direct Deposit	In-State Consultant Check
Payment Type	Check	NACHA	Check
Currency	US Dollar	US Dollar	US Dollar

6. For the non-executive and executive employee organization payment methods, in the Payment Sources section under Employee Payment Sources, click **Create**.

On the Create Payment Source page, complete the fields as shown in this table, and then click **Continue**.

Field	Non-Executive Value	Executive Value
Name	Employee Check Source	Executive Direct Deposit Source
Bank Account Name	InFusion US Wells Fargo	InFusion US Bank of America

---

### Note

Keep your payment source names as specific as possible for each scenario. This will help when managing more complicated combinations of organization payment methods and payment rules.

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7. For the third-party organization payment method for non-employee payments, in the Payment Sources section under Third-Party Payment Sources, click **Create**.

Perform this step twice, once for each payment source.

On the Create Payment Source page, complete the fields as shown in this table, and then click **Continue**.

Field	First Source Value	Second Source Value
Name	Texas Check Source	California Check Source
Bank Account Name	Comerica Bank	Bank of the West

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#### Note

If a single organization payment method has payment sources defined for both employees and third parties, the names of the payment sources must not be the same.

---

8. Click **Submit**.

## Creating Payment Rules

In this example, the organization payment method you set up for the external third-party payments with two different payment sources requires payment rules to determine how payments are distributed.

Perform these steps for the In-State Consultant Check organization payment method created in the previous task.

1. In the Search section of the Manage Organization Payment Methods page, select your legislative data group, and then click **Search**.
2. In the Search Results section, click the **Edit** icon in the Update Status column for the row showing the In-State Consultant organization payment method.
3. Click **Yes** if a message displays confirming you want to correct the record.
4. In the Payment Method Rules section under Third-Party Payment Sources, click **Create** and select the values shown in this table to create two payment rules that map a payment source to a tax reporting unit.

Field	Texas Check Source	California Check Source
Default	No	No
Tax Reporting Unit	Texas TRU	California TRU
Payment Source	Texas Check Source	California Check Source

5. Click **Submit**.

## Adding EFT File Information

In this example, the bank information for the EFT payments to executive employees must be added.

When you select the EFT payment type, you can enter EFT information at the organization payment method level, the payment source level, or both. Entries at payment source level take priority over entries at organization payment level. In this example, the EFT information is set at the organization payment method level because the US company requires notification of any electronic transfers of funds 10 days prior to the planned transfer date.



1. In the Search section of the Manage Organization Payment Methods page, select your legislative data group, and then click **Search**.
2. In the Search Results section, click the **Edit** icon in the Update Status column for the row showing the Executive Direct Deposit organization payment method.
3. Click **Yes** if a message displays confirming you want to correct the record.
4. In the Electronic Funds Transfer File Information section, enter values as shown in this table.

Field	Value
Prenotification Required	Yes
Prenote Days	10

5. In the Payment Rules area, ensure that the Executive Direct Deposit Source is selected as the default payment source.
6. Click **Submit**.

## Third-Party Payment Methods: Explained

Use the Manage Third-Party Payment Methods task to create payment methods for all external payees who are not on the payroll. A third party can be either a person or an organization. Payments to third parties are normally involuntary deductions, such as court-ordered garnishments.

For all third-party payment methods, the organization method that determines the payment source to use must already be defined. Use the Manage Organization Payment Methods task in the Payment Distribution work area to define the payment source for third-party payments.

### Payments to Persons

When you create a third-party payment method for a person, you select the payroll relationship for the employee whose pay is subject to the deduction. This makes the third-party person payment method available for selection as a payee on the employee's involuntary deduction card.

For example, you might set up an electronic funds transfer (EFT) payment to Mary Smith for a child-support deduction for employee John Smith. When you create the third-party payment method, you select the payroll relationship for John Smith. When you add the child support order to John Smith's involuntary deduction card, you can select Mary Smith in the Order Amount Payee field.

### Payments to Organizations

When you create a third-party payment method for an organization, you select External Payee in the Party Usage Code field to make the organization available for selection as a payee on the employee's deduction card.

For example, you might set up an EFT payment method for a County Sheriff that receives a processing fee on garnishment payments. When you create the payment method, you designate the County Sheriff as an External Payee. When you add the garnishment order to the employee's involuntary deduction card, you can select the County Sheriff in the Processing Fee Payee field.

## Define Payroll Costing

### Payroll Cost Allocation Key Flexfield: Critical Choices

The cost allocation key flexfield creates a structure that captures the account codes you use to create accounting entries, and to report and track your labor costs. When planning how to create a key flexfield structure, consider the following choices:

- **Structure of the cost allocation key flexfield**  
Decide how many segments you require and in what sequence, and whether you need additional segments not required by the chart of accounts flexfield.
- **Segment Value Sets**  
Confirm that you have created value sets or can reuse existing value sets that supply the values for each segment you create in your flexfield structure.
- **Cost hierarchy levels required for each cost account segment**  
For the cost account, for each column heading, you select the segment labels that correspond to the levels of the cost hierarchy where the user can enter account information: payroll, element, department, job, position, and person levels.
- **Identify which segments should be available for entry for the offset account**  
For the offset account, for each column heading, you select offset as the segment label, if you want to enable entry of the segment for the offset account.  
  
Decide if the account number you enter for a segment of the cost account is the same account number you enter for the offset account. You only need to specify that a segment is applicable for the offset account, if you expect the segment to record different account number than the cost account. For example, for a segment where the account number seldom changes, such as the number that identifies the company, you would not specify that the company number is applicable for the offset. When the application builds the offset account for the company segment, it would use the account number for the company segment that you entered for the cost account.
- **Number of different instances of the cost allocation key flexfield structure**  
Determine if a legislative data group requires different value sets for the flexfield segments. You can create separate instances for these legislative data groups.

#### Structure of the Cost Allocation Key Flexfield

Use the predefined cost allocation key flexfield code to create a cost allocation key flexfield structure. The structure specifies the segments to include, their

order, and the value sets to validate the data entered in the segments. The segments correspond to each part of the account number, such as the company identifier, cost center code, and the activity or expenditure type.

As a best practice, you create the cost allocation key flexfield structure based on the key flexfield structure used by the accounting flexfield for that chart of accounts that receives the costing entries from payroll. By using a similar sequence of segments and naming conventions, you can facilitate setup, avoid discrepancies, and minimize effort. For example, when you define the accounting rules in Oracle Fusion Subledger Accounting, you can more easily map the segment names of the cost flexfield to the heading names in the accounting flexfield.

When you create your cost allocation key flexfield, also consider whether you want to add segments for:

- Future use

You can include segments in your flexfield and not display them until you start using them, such as segments that accommodate new lines of business as the enterprise expands.

- Context sensitive information used by legislation

For example, if you maintain separate liability accounts for each state and state tax, you might create additional segments to record this context sensitive information.

- Project and task information used by other applications

For example, you might choose to break down costs of a project for reporting purposes.

## Segment Value Sets

You associate each segment in your structure to a value set, which validates the data entered for that segment.

When planning which value sets to create for your segments, consider which segments require a:

- Value set that is shared, such as value sets created for the chart of accounts flexfield

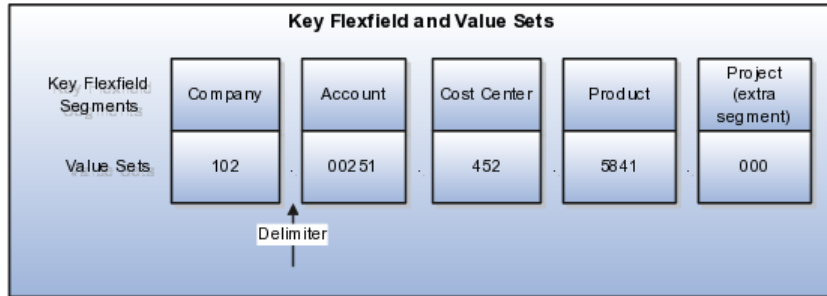
- Value set specific to payroll

You might create a separate value set if you require a small subset of the value set created by Financials. In this example, a separate value set could reduce input errors.

- Single value when segments share the same value for all accounts

For example, if you add a segment for future use to your flexfield structure, you might create a value set with a single value of zeros to serve as a placeholder for a future account number.

The following figure shows how the cost allocation key flexfield segments are associated to value sets. The flexfield structure includes an additional segment to break down costs for projects, which does not have a corresponding segment in the chart of account.

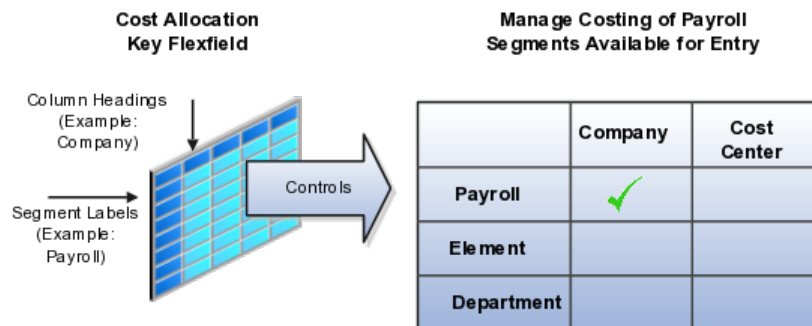


## Cost Hierarchy Levels

When you create the cost allocation key flexfield structure, you determine at which levels of the cost hierarchy each cost account segment is available for entry. This structure controls which cost account segments the application displays on the costing setup pages.

Each column heading of the cost key flexfield structure corresponds to a segment of your account structure. Each segment label of the flexfield structure corresponds to a cost hierarchy level, which qualifies where you can enter account information. For example, you might select the column heading for the segment that records the natural account and select element as the segment label. The Manage Costing of Elements page would then include the natural account segment for the cost account, and you could enter that account for the appropriate element eligibility records.

The following figure illustrates how the flexfield structure determines which segments you can specify for the cost account on the costing setup pages.



## Note

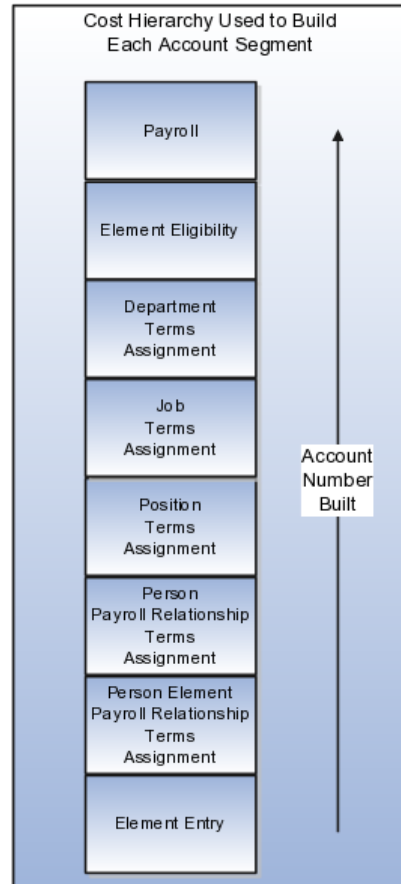
You can specify different levels of the cost hierarchy for the cost segments, but the offset segments that balance the costs are available for entry only at the element level of the cost hierarchy.

You do not have to enter a costing segment at each level of the cost hierarchy where it is available for entry. The cost hierarchy determines how a segment inherits an account number. If you enter an account number at a higher level, such as the company account at the payroll level, each lower level of the cost hierarchy inherits that number. If you do not want all the levels to inherit the same number, you can specify the levels at which to override the account number. Overrides identify costs at a more granular level.

The level at which you enter costs is a key determinant in how the application builds the account number. The application starts with the lowest level (element

entry) and ends with the highest level (payroll), checking for a value at each level until a value is found. For example, if you specify that a cost center segment is available for entry at the department and job levels, if the application finds a cost center number at the job level, it uses that number and not values at any higher levels.

The following figure shows the different levels of the cost hierarchy.



When setting up the segment labels for the cost allocation key flexfield, consider which level of the cost hierarchy to enable the segment for entry. The following table includes example of the segment labels you might specify for costing.

Cost Hierarchy Level	Example
Payroll	Select payroll segment label for segments that seldom change for the people assigned to the payroll, such as company, line of business, and future use segments.
Job or Position	<p>Select job segment label to compare and roll-up costs based upon job category.</p> <p>Select position segment label if you are using position management at your enterprise, to better track the cost of turnover to the enterprise.</p> <p>Costing at these levels requires higher maintenance to set up and manage the costing in diverse and complex organizations.</p>

Person	<p>Select segment label for Person to enable costing at the payroll relationship, term, and assignment level, and for elements at each of these levels.</p> <p>You might select Person to enable allocation of wages when costs are shared by several cost centers, or to override the activity or natural account segment that is usually enabled at the element level.</p>
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## Number of Key Flexfield Structure Instances

You create structure instances of your cost allocation key flexfield that you then associate to legislative data groups. Structure instances share the same set, arrangement, and properties of the cost allocation key flexfield structure.

Before creating structure instances, determine how many instances you require. You associate a single instance to a legislative data group on the Manage Legislative Data Groups page, but you can associate the same instance to several legislative data groups, as long as they all use the same value sets.

To fully implement the cost allocation key flexfield, you specify rules in Oracle Subledger Accounting that identify the flexfield instance to use as the source for entries in the chart of accounts. You map each segment of your cost flexfield instance to the corresponding segment of the accounting flexfield for your chart of accounts using the Manage Account Rules task. If you selected the option when you created your accounting flexfield instances in Oracle Fusion General Ledger to allow dynamic account combination, when you save the account rule, Subledger Accounting automatically creates the corresponding account combinations for General Ledger. (Otherwise, you must create General Ledgers accounts that correspond to each of the account combinations you plan to use in payroll using the Manage Account Combinations task.)

Account numbers generated by payroll costing are validated against the cost-code combinations created in General Ledger when the Create Final Accounting process is submitted

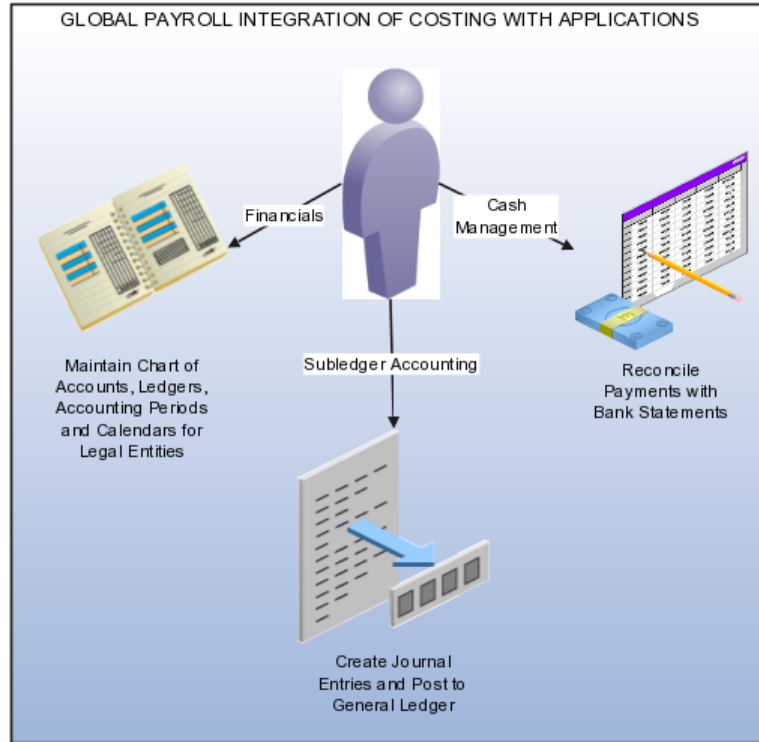
## Payroll Costing Components: How They Work Together

Payroll costing integrates components required to accurately report labor costs and generate journal entries for your payroll run results and payments. To set up and manage payroll costing, you must have the appropriate duty roles to create components used by payroll costing, such as ledgers that you associate to legal entities, accounting methods and rules, and banking information.

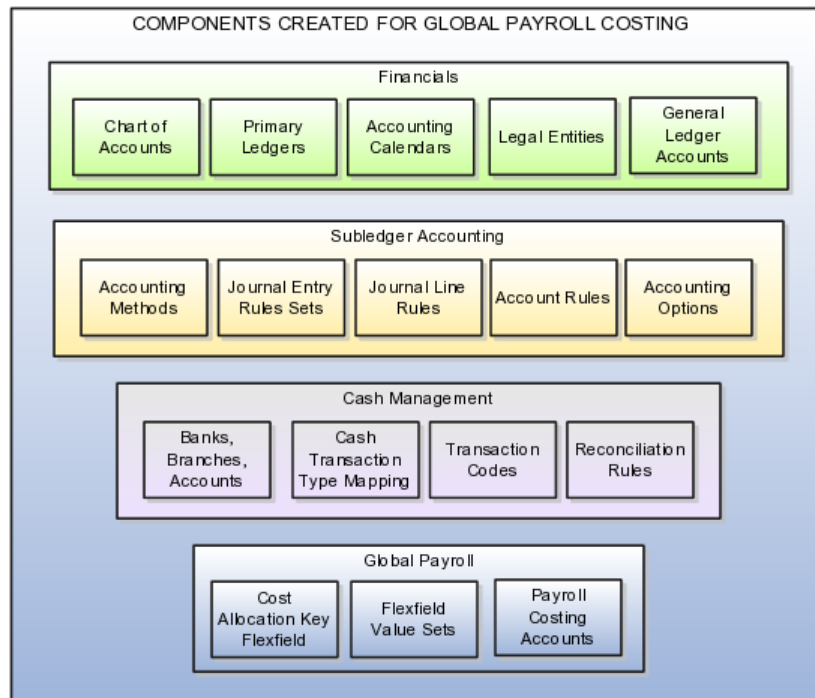
Payroll costing involves creating the following components:

- Financial ledgers, calendars, accounting periods, and legal entities
- Cost allocation key flexfield
- Subledger accounting methods and rules
- Cash Management bank account and reconciliation information
- Payroll cost accounts

The following figure illustrates how Oracle Fusion Global Payroll works with the following applications: Oracle Fusion Financials to maintain chart of accounts, ledgers, accounting periods, and calendars for legal entities; Oracle Fusion Cash Management to reconcile payments with bank statements; and Oracle Fusion Subledger to create journal entries for transfer to General Ledger.



The following figure shows the different components you set up for payroll costing grouped by application.



### Financial Information

You create components in Financials that support payroll costing, such as general ledgers, accounting calendars, and accounting periods. For example, you create ledgers in Financials that you later associate to your payrolls.

You create an accounting key flexfield structure for the chart of accounts and create General Ledger accounts that receive costing entries, such as cost, offset, payroll liability, cash clearing, and cash accounts. Most enterprises use the structure of this key flexfield and the value sets as a basis for the structure of the cost allocation key flexfield.

When you create the equivalent accounts in payroll, you should ensure that the same natural account is used in payroll that you use in your General Ledger accounts. By using a similar structure, you avoid discrepancies, minimize maintenance, and improve communication between departments when resolving questions about account entries. For example, you would want to ensure that the Cash account uses the same natural account in Payroll as in General Ledger so that you can easily reconcile the cash account balance with the bank balance for transactions for the same bank account. The Application Implementation Consultant with the appropriate Financial duty roles can perform these tasks.

### **Cost Allocation Key Flexfield**

You create an account key flexfield structure based on the cost allocation key flexfield code, and then create a structure instance that you associate to appropriate value sets. You map the structure instance to a legislative data group. You specify rules in Subledger Accounting on the Manage Account Rules page to use the cost allocation key flexfield instance as the source for segments in the accounting key flexfield for the chart of accounts. If you selected the option when you created your accounting flexfield instances in Oracle Fusion General Ledger to allow dynamic account combination, when you save the account rules, Subledger Accounting automatically creates the corresponding account combinations for General Ledger. (Otherwise, you must create General Ledger accounts that correspond to each of the account combinations you plan to use in payroll using the Manage Account Combinations task.)

The cost flexfield structure determines at which levels of the payroll cost hierarchy you can enter account information when you create your payroll accounts. Specifying different levels at which to enter account information for a segment enables you to override account information. For example, you might specify that the department and job level can hold account information for a cost center segment, which would then enable you to specify a different cost center for a job than the department.

### **Subledger Accounting Methods and Rules**

Subledger Accounting generates subledger journals, creates subledger balances, and generates general ledger journals. Payroll supplies predefined data for Subledger Accounting, such as event classes for event entities. You create accounting methods, and journal line and entry rules that Subledger Accounting uses to create accounting entries and post them to general ledger. You must have the Subledger Accounting duty roles required to perform these tasks.

### **Cash Management Bank Account and Reconciliation Information**

Payroll requires bank account information for Check and EFT payment types, and optionally for Cash and Money Order payment types. If you plan to cost the payments that you issue, complete the bank, branch, and bank account information for the payment source and specify the General Ledger cash account. To reconcile your payments, you create reconciliation rules, map transaction types to payment types, create bank statement transaction codes, and specify the General Ledger accounts for cash clearing and reconciliation



differences. You must have the Cash Management duty roles required to perform these tasks

### **Payroll Cost Accounts**

After creating the components that support payroll costing in the other applications, you create the costing setup information for the different payroll accounts you intend to use, such as the cost, offset, suspense, default, payroll liability, cash clearing, and cash accounts. You enter the account information and any overrides for the different levels of the cost hierarchy. You must ensure when you set up the cash and cash clearing accounts that the natural account segment you specify for these accounts is the same as the natural account specified in the equivalent general ledger accounts.

## **Payroll Costing and Payroll Accounts Setup: Critical Choices**

Payroll accounts capture the account information required to generate journal entries for the ledgers used by your legal entities, and to produce the data required to accurately report and track labor costs based on regulatory and corporate requirements. The framework for payroll accounts accommodates cash and accrual accounting, distribution of costs over earnings elements, allocation of costs to multiple accounts, and the reconciliation of payments.

The payroll accounts you create store cost, payment, and offset costing results. The application places cost results with errors in a suspense account and unallocated costs in a default account for review and corrective action. Review the following choices about the payroll accounts and the options for managing the costing results:

- Offset accounts
- Payment accounts
- Suspense and default accounts
- Cost account overrides
- Cost allocation and distribution
- Transfer to General Ledger
- Retroactive costing

### **Offset Accounts**

Identify which accounts your enterprise uses to create balancing entries required for double-entry bookkeeping. Create offset accounts on the Manage Costing of Elements page for each element eligibility record that you cost.

For elements that affect net pay, the offset for cash accounting is usually an asset account, such as Cash in Bank, and for accrual accounting a payroll liability account, such as Wages Payable. Employer taxes and benefit expenses generally use offset accounts specific to the types of liability.

The cost allocation key flexfield determines the segments available for entry for the offset account. You do not have to complete all the segments. If you leave a segment blank, the application builds the account information based on the corresponding segment entered for the cost account.

### **Payment Accounts**

The number of payment accounts you create depends on whether your company uses cash or accrual accounting, and whether you reconcile your payments.

For both cash and accrual accounting, create a cash account for each separate bank account, entering the appropriate natural account for each record. If you

use accrual accounting, create payroll liability accounts for your payment sources. If you reconcile your payments, create a cash clearing account to generate costing entries when the payments clear. When you create these accounts, ensure that you select the same account numbers for the segments as the General Ledger accounts you select when specifying the bank account information in Cash Management. By using the same account information, you avoid discrepancies and minimize maintenance.

### **Suspense and Default Accounts**

You can create payroll suspense and default accounts at the payroll or department level of the cost hierarchy. Suspense and default entries for a department override those at the payroll level.

Review your enterprise requirements to decide at which level you resolve invalid or unallocated cost results. For example, you may decide to create the default account at the department level, to aggregate unallocated cost results so that they are more easily identified and processed.

### **Cost Account Overrides**

You can override the costing information to meet specific conditions, such as costing for a job or person or for a specific payroll period. You can also override the standard process of building the cost account by creating a Priority account to cost element results.

You can control the level of granularity for costing by entering costing information for:

- An object at a lower levels of the cost hierarchy  
You enter account information on separate pages that correspond to the levels of the cost hierarchy: Manage Costing of Payrolls, Manage Costing of Elements, Manage Costing of Departments, Manage Costing of Jobs, and Manage Costing of Positions. You can override account information entered at a higher level of the cost hierarchy by entering information at a lower level. For example, if you enter an account number for the cost center segment for a department on the Manage Costing of Departments page, you could override the account number for a job within that department, by entering its cost center account number on the Manage Costing of Jobs page.
- A person  
After you conclude your implementation and create your person records, you can override costing account information on the Manage Costing of Persons page by specifying costing at the payroll relationship, terms, or assignment level.
- A payroll period  
You can enter cost information on the element entry records for people in your enterprise to apply to a specific payroll period.

You can override the standard process for calculating the cost account by creating a Priority cost account. You might create a Priority account to ensure that the application costs the entire cost or a portion of the cost to a single account number. If you specify a percentage of the cost to a Priority account, the application creates a costing entry for the percentage allocated to the Priority account, and a costing entry for the remaining percentage, by using the standard costing process to derive the cost account number.

## Cost Allocation and Distribution

You have a choice to divide a cost among accounts, for example to divide labor costs over more than one cost center. You can also distribute your overhead expenses across earnings elements, such as employer liability and tax charges.

You can allocate costs when creating:

- Cost accounts for departments, jobs, and positions
- Priority accounts
- Person accounts

You create cost accounts for people after you complete your implementation and create person records.

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### Note

With the exception of the Priority account, the total percentage you allocate to each account must equal 100 percent.

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You set up distributed costing by creating the cost account information for the distributed element on the Manage Costing of Elements page and the distribution element groups that include earnings elements on the Manage Object Groups page. You can control whether to include all or a portion of each earning element, and whether to include the earnings element in more than one distribution group.

## Transfer to General Ledger

If you plan to transfer payroll and payment costs to Oracle Fusion General Ledger, you select options on the costing setup pages. Specify on the Manage Costing of Elements page and the Manage Costing of Payment Sources the elements and payment sources that you intend to post to general ledger.

Default configuration parameters specify the basis for accounting dates, which you can review and update as required on the Manage Payroll Process Configuration.

Parameter Name	Parameter Description	Default Value
Transfer to GL Process on Date Earned	Date earned or date paid, used to transfer and post journal entries for costing results to Oracle Fusion General Ledger	P
Reversal and Balance Adjustment Accounting Date	Accounting date based on the process date of the reversal or balance adjustment or the process end date of the Transfer to Subledger Accounting process.	T

## Retroactive Costing

There are two retroactive costing processes, one which recalculates costs after you change the costing setup, and one which calculates costs for retroactive pay.

Before you can run:

- Calculate Retroactive Costing, correct the information you set up at the different levels of the cost hierarchy

The process recalculates cost results after you edit the costing setups. The application compares the recalculated and original entries, and where different, offsets the original entries and creates new ones.

- Recalculate Payroll for Retroactive Changes, cost the eligibility records of each retroactive element whose run results the application should cost when calculating retroactive pay

The process calculates costing for retroactive pay changes, and records the difference found between the original entry and the retroactive result.

## Payroll and Financials Setup: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Financials. You create components as part of your implementation such as chart of accounts, ledgers, and accounting calendars, which you use when creating payroll definitions and when distributing accounting for payroll costs.

Complete the following setup tasks in the Setup and Maintenance area for the chart of accounts and ledgers. If you integrate Global Payroll and Financials in a single system, assign an application implementation consultant role or appropriate duty role to a Financials or payroll manager.

### Chart of Account Setup Tasks

Complete the following tasks to set up your chart of accounts information. Later, you associate the chart of accounts to a ledger.

Task	Action
Manage Chart of Accounts Value Sets	Create new or review existing value sets for association with a key flexfield segment.
Manage Chart of Accounts Structures	<p>Create account structures that specify the segments to include, their order, and the value sets to validate the data entered in the segments.</p> <p>The key flexfield, Accounting Flexfield, is predefined for you in Oracle Fusion General Ledger.</p>
Manage Chart of Accounts Structure Instances	Create account structure instances used to record transactions and maintain account balances.
Manage Chart of Accounts Value Set Values	Create groups of values assigned to a key flexfield segment.
Manage Account Hierarchies	Search, create, and edit hierarchical groupings of accounts.
Manage Accounting Calendars	Set up accounting calendar period details. Determine the total number, frequency, and duration of the accounting periods.
Manage Account Combinations	<p>If you do not select the option for your chart of accounts structure instance to allow account combinations to be dynamically created, you create account combinations. You create accounts for each account combination used in payroll, for example, for your payroll liability, cash, cash clearing, default, and suspense accounts. As a best practice, use the same account numbers in payroll and General Ledger.</p> <p>If you reconcile payments in Oracle Fusion Cash Management, create an account combination for reconciliation differences.</p>

## Ledger Setup Tasks

You perform the following tasks as part of the accounting configuration setup for payroll.

Task	Action
Manage Primary Ledgers	<p>Create a ledger with a chart of accounts, accounting calendar, currency and subledger accounting method.</p> <p>If you are creating bank information, you must create a primary ledger.</p>
Assign Legal Entities	<p>Add the legal entities that use the ledger.</p> <p>When you create a payroll definition, you select a legislative data group. The list of available ledgers includes only ledgers assigned to legal entities associated with the legislative data group. (The Manage Legal Entity HCM Information task associates the payroll statutory units for legal entities to the legislative data group.)</p>
Specify Ledger Options	<p>Complete the fields for the General Information, Accounting Calendar, and Subledger Accounting sections. In the Period Close section, select the Retained Earnings Account you will use for payroll. In the Journal Processing Intercompany subsection, select the option to launch AutoReverse after the open period.</p>
Assign Balancing Segment Values to Legal Entities	<p>Assign specific balancing segment values to each legal entity before assigning values to the ledgers. By specifying this information, you can more easily identify legal entities during transaction processing and reporting</p>
Assign Balancing Segment Values to Ledger	<p>Optionally, assign specific primary balancing segment values to the primary and secondary ledgers to represent transactions for nonlegal entities, such as adjustments.</p>
Manage Reporting Currencies	<p>Review and update reporting currencies. Reporting currencies maintain and record subledger and general ledger journal entries in additional currencies.</p>
Review and Submit Accounting Configuration	<p>Submit your configuration.</p>
Open First Period	<p>Open the first period when you are ready to process transactions for the ledger.</p> <p>the Open First Period Task is used initially to open the first period. Afterwards, you use the Manage Accounting Periods in General Ledger to open and close periods, and to specify the target period that concludes the series of calendar periods.</p>

## Payroll Costing and Subledger Accounting Setup: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Subledger Accounting to streamline accounting tasks. Payroll transactions generate

accounting events such as the costing of the payroll run, payments, and partial period accruals. Subledger Accounting applies rules to the transaction data and creates subledger journal entries and subledger balances for each payroll cost, and posts this information to Oracle Fusion General Ledger. This integration simplifies the management of corporate and statutory audit and reporting requirements by recording detailed and summary information, and facilitates the reconciliation of payments with Oracle Cash Management.

Global Payroll provides predefined data for Subledger Accounting. Subledger Accounting uses this data when creating accounting entries for payroll transactions and posting the resulting journal entries to General Ledger. You create additional components in Subledger Accounting to support costing, such as accounting methods and rules.

### Predefined Tasks

When you create your implementation project, you can configure the Financials offering by selecting the Define Subledger Application and Sources task list from the Select Features Choices page. You can include this task list to view the Subledger Accounting information that supports payroll costing. The information includes the definition of attribute values, process categories, event classes and event class options, sources, source assignments and accounting attribute assignments, journal line types, account derivation rules, journal lines definitions, and application accounting definitions.

### Required Tasks

The Define Subledger Accounting Methods task list includes tasks you must complete to integrate Subledger Accounting with Payroll.

You perform the following tasks as part of the setup required for defining payroll costing.

Page	Action
Manage Account Rules	Specify the segment rules for each segment of the chart of accounts flexfield structure that has a corresponding source segment in the cost allocation key flexfield. Enter conditions to use for the rules.  If you selected the Oracle Fusion General Ledger accounting key flexfield option to allow dynamic account combination, when you save the account rule, Subledger Accounting automatically creates the corresponding account combinations for General Ledger. (Otherwise, you must create General Ledgers accounts using the Manage Account Combinations task.)
Manage Subledger Journal Entry Rules Sets	Create journal entry rule sets for each type of event class: Costs, Payment Costs, Run Costs, and Partial Period Accrual for event types All and Reversal. Confirm the status is active.
Manage Journal Line Rules	Create journal line rules for the journal rule sets that have the same event class, and assign conditions.
Manage Accounting Methods	On the Payroll tab, add the journal rule set for each event class. From the Actions menu, change the status to active.

Manage Subledger Accounting Options	Specify accounting options to define how journal entries are generated from subledger transactions. Determine whether to summarize by general ledger date or by general ledger period.
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### Optional Tasks

Complete the following optional tasks.

Page	Action
Import Supporting Reference Initial Balances	Import source values for the balances maintained by the segments that store supporting reference balances.
Manage Description Rules	Define the rules for the descriptions that appear on the subledger journal entry at the header and the line level.
Manage Supporting References	Decide what additional source information to store about a subledger journal at the header or line level.

## Payroll Costing of Elements: Critical Choices

The Manage Costing of Elements page records your choices about how to cost the element eligibility records for an element. You can decide which input values for the element to cost and which offset account to use to balance the cost account. You also have the choice of creating an override cost account, a Priority account, to ensure that you cost the run results to only one account number.

After you complete the initial implementation and create your person records, you can further define the costing of elements for specific people in your enterprise to cover situations where, for example, you need to cost the person's element run results to a different natural account or activity, such as specifying a separate account for commission bonuses for a group of sales people.

When you create costing for elements, review the following points:

- Element eligibility records
- Costing type
- Offset account
- Priority account

### Element Eligibility Records

If you plan to cost the run results for an element processed in a payroll run, you must specify at least one element eligibility record when you create the element. You do not need to specify element eligibility criteria, but you must create a name for the element eligibility record. Cost the element eligibility records for the element that includes the primary output value, either the base element or the results element.

When you cost the base or the related results element, cost all its element eligibility records, even if the costing is the same for all the eligibility records. If you do not cost all the eligibility records, the application costs only those entries that have eligibility records with costing information.

The element classification determines whether the costing results for the cost and offset accounts for the element eligibility record create credits or debits, and

whether the application can include the element as a member of a distribution group.

## Costing Type

The costing type determines whether the application should cost the payroll run results and distribute the cost over earnings elements. The costing type is also one factor in determining which levels of the cost hierarchy the application checks when building the account number for each segment.

- **Costed:** The application costs the run result value and checks for costing details at levels of the cost hierarchy based on the type of account. This account type is used most frequently for earnings elements.
- **Distributed:** The application costs and distributes the results over the elements included in a distribution group.

You might select this option to spread employer charges, taxes, and liabilities over employee earnings.

- **Fixed Costed:** The application costs the payroll run result value but restricts the check for costing details to three levels of the cost hierarchy: element entry, element, and payroll levels.

You might use fixed costing for deductions, which are commonly assigned at the payroll relationship level, and do not require cost overrides at other levels of the cost hierarchy. For example, if you have multiple companies for a ledger that use the same account structure, you might use fixed costing and record the company segment at the payroll level and the remaining segments for the cost account at the element level.

- **Not Costed:** Optionally, select this option to record your decision not to cost the run result value for this element. The application only costs elements with a costing type of Costed, Distributed, or Fixed Costing. You might specify this option for elements that do not affect net pay, such as absence accruals, information elements, and some taxable benefits where the amount the employee is taxed is not the employer's cost of providing the benefit.

## Offset Accounts

The cost allocation key flexfield determines the segments available for entry for the offset account. You do not have to complete all the segments. If you leave a segment blank, the application builds the account information based on the corresponding segment entered for the cost account.

## Distributed Costing

Distributed costing allocates costs for the payroll run result values of distributed elements over earnings elements. For example, the costs for employer taxes, charges, and liabilities are generally distributed over earnings elements such as wages, overtime, and shift pay.

Identify which elements have costs that you plan to distribute, and which earnings elements to include as members of the distribution group. You create distribution groups on the Manage Object Groups page. Create an object group of element group type, and distribution usage type, and select the elements to include in the group.



When payroll calculates the costs for the distributed element, the application allocates the costs based on the ratio that each element in the distribution group contributes to the total cost. The application creates the distributed cost entries for each earnings element in the distribution group, replacing the account numbers for the segments of the earnings elements with the account numbers for the corresponding segments defined for the distributed element.

### **Priority Accounts**

Decide whether to use a Priority account as a separate cost account to ensure that all cost results for the element are allocated to one account and that no overrides occur at other levels of the cost hierarchy. You might choose this option if you fund a specific labor cost entirely or partially by one account.

For example, if a percentage of wages are funded by a matching grant, you might enter a cost account and a priority account. You would specify the percentage of the element that receives this funding and enter the priority account information, and then enter the appropriate segments for the cost account. The application would apply the specified percentage of the costs for the element's run results to the priority account and use the standard costing process to derive the cost account for the remaining percentage.

## **Payroll Cost Results: How They Are Calculated**

Payroll processes generate costing results and create journal entries used to record your labor costs.

## **Settings That Affect Payroll Run Cost Results**

Several settings affect how the application costs a payroll run result for a payroll relationship:

- Element classification costing options

Costing options specified on the Manage Element Classifications page determine whether the application costs elements with a specified classification and whether the application creates the costing entries as credits or debits. The costing options on this page also determine if the application can include the elements with that classification in a distribution group.

- Cost allocations

When setting up costing information, you can specify whether a cost is allocated to a single account or allocated across several accounts, in which case a costing entry is created for each account based on the percentage of the cost it should receive. For example, if you split the cost of a payroll run result value for an earnings element between two different cost centers, the costing process produces two cost entries and two offset entries.

When the application calculates the costing results, if the total allocation does not equal 100 percent, the remaining allocation is placed in a default account. After you correct the costing setup, you can process a corrective action to cost the run result value to the appropriate account.

- Element's costing type

The costing options on Manage Costing of Elements page specify the costing type and which element input values to cost. The costing types determines how the application costs the payroll run result value.

- **Not Costed:** The application does not cost the run result value for this element.

Enterprises use this option for absence accruals, information elements, and some taxable (imputed) benefits.

- **Costed:** The application costs the run result value and checks for costing details at levels of the cost hierarchy based on the type of account.

- **Distributed:** The application costs and distributes the results over the elements included a distribution group.

Enterprises use distributed costing to spread employer charges, taxes, and liabilities over employee earnings.

- **Fixed Costed:** The application costs the payroll run result value but restricts the check for costing details to three levels of the cost hierarchy: element entry, element, and payroll levels.

Enterprises use fixed costing for deductions when they capture costing details only on the payroll and element levels of the cost hierarchy. For example, if the enterprise has multiple companies for a set of books and uses the same account structure for each corporation, the enterprise might use fixed costing and record the company segment at the payroll level and the remaining segments for the account that records the deduction at the element level.

- **Type of account**

The type of account determines which levels the costing process checks when building the account number. The implementation determines which levels of the costing hierarchy can include costing details. When managing the costing setup information, you can review the combined information in tables accessible from the Context area of the Accounting Distribution work area list.

- **Cost accounts:** The application checks all levels of the costing hierarchy for costing details. Segments entered at each level depend on which levels the implementation restricts for entry.
- **Suspense and default accounts:** The application checks the department and payroll levels of the costing hierarchy. You enter the entire number at either the department or payroll level depending on the implementation.
- **Priority accounts:** The application checks the element eligibility level. If some of the segments are entered, the application completes the account number using the standard costing process. If the entire account number is entered, the application bypasses the standard costing process and uses only the priority account to cost the payroll run result value.

- **Offset number:** The application checks the element eligibility level when generating the offsetting entry that balances the payroll run result values. The application completes any blank segments using the value for the same segment from the cost account.  
Enterprises might leave a segment blank when they have multiple legal entities or other levels within the organization that maintain separate balance sheets. Completing the account number by inserting the remaining values for the segments from the cost account ensures, that the appropriate segment for the company or ledger is entered in the offset account and avoids additional setup time.

## How the Costing is Calculated

The different costing processes generate costing entries for payroll run results or payments generated at the payroll relationship level, and offset entries to balance those entries. For example, when calculating the payroll, the application costs a salary run result value as a debit to an expense account and offsets the same amount as a credit to a payroll liability account. When costing a cleared payment, the application costs a payment as a debit to a clearing account and offsets the same amount as a credit to a cash account.

The application calculates the costing result for a payroll run result value and a payment value in different ways. When building the cost account for:

- **Payroll run results:** The application checks the costing hierarchy levels. The type of account, costing type, costing allocation, and implementation determine which levels of the costing hierarchy the application checks. The application builds the account number segment by segment, starting with the lowest and most detailed level (element entry) and checking each subsequent level to the highest and most general level (payroll) until it locates a number for a segment of the account number. The application repeats this process for each segment until the entire number is built. For example, to build the number for a cost center segment, the application starts with the element entry level. If it does not find a number for the cost center segment at that level, it continues up the hierarchy. If it finds a cost center number at the job level, it uses that number and does not use the one at the next higher level, the department level. When building the account number, the costing process uses the account information effective for the date earned of the payroll run.
- **Payment results:** The application uses the account number for the payment source as specified on the **Manage Payment Source** page.

The application places invalid entries for costed payroll run result values and payments in a suspense account and incomplete entries in a default account. After editing the costing setup, you can process a corrective action to cost the entry to the appropriate account. The application offsets the original costing when the corrected account number is generated, which clears the suspense or default account.

This table lists the standard costing hierarchy levels checked when the application builds the account number for payroll run result values and where to manage these settings.

Level of Costing Hierarchy Checked for Costing Details	Sequence of Costing Hierarchy Levels Checked	Accounts Checked for Costing Details	Costing Types Checked for Costing Details	Page Where Costing Details Are Managed
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	When Costing Payroll Run Result Values			
Element Entry	First level checked when building each account segment. If costing details are not found for that segment, the application proceeds to the next level, the Person Element - Assignment level.	Cost	Fixed Costed, Costed, Distributed	Manage Element Entries
Person Element - Assignment	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Person Element - Terms	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Person Element - Payroll Relationship	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Person - Assignment	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Person - Terms	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Person - Payroll Relationship	Next level checked.	Cost	Costed, Distributed	Manage Costing for Persons
Position	Next level checked.	Cost	Costed, Distributed	Manage Costing of Positions
Job	Next level checked.	Cost	Costed, Distributed	Manage Costing of Jobs
Department	Next level checked.	Cost, Default, Suspense	Costed, Distributed	Manage Costing of Departments
Element Eligibility	Next level checked.	Cost, Offset, Priority	Fixed Costed, Costed, Distributed	Manage Costing of Elements
Payroll	Last level checked for costing information. If costing setup information is not found for that segment and the resulting costing account number is incomplete, the entry is costed to a Default account or, if invalid, to the Suspense account	Cost, Default, Suspense	Fixed Costed, Costed, Distributed	Manage Costing of Payrolls

When building the account number for the payroll run result values for a retroactive pay element, the **Recalculate Payroll for Retroactive Changes** process checks for costing details as of the current payroll period and the original payroll period. This table lists the costing hierarchy levels checked when the

application builds the account number for retroactive payroll run result values and where to manage these settings.

Level of Costing Hierarchy Checked for Costing Details for Retroactive Pay	Sequence of Costing Hierarchy Levels Checked for Costing Details	Current or Original Payroll Period Checked for Costing Details	Accounts Checked for Costing Details	Costing Types Checked for Costing Details	Page Where Costing Details Are Managed
Retroactive Pay Element Entry	First level checked for costing details when building each account segment for retroactive pay elements only. If costing details are not found for that segment, the application proceeds to the next level, the Retroactive Pay Element Eligibility level.	Current	Cost	Fixed Costed, Costed, Distributed	Manage Element Entries
Retroactive Pay Element Eligibility	Next level checked for retroactive pay elements only. If costing details are not found for that segment, the application proceeds to the Element Entry level of the original payroll period.	Current	Cost	Fixed Costed, Costed, Distributed	Manage Costing of Elements
Element Entry	Next level checked.	Original	Cost	Fixed Costed, Costed, Distributed	Manage Element Entries
Person Element - Assignment	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing for Persons
Person Element - Terms	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing for Persons
Person Element - Payroll Relationship	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing for Persons
Person - Assignment	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing for Persons

Person - Terms	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing for Persons
Person - Payroll Relationship	Next level checked	Original	Cost	Costed, Distributed	Manage Costing for Persons
Position	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing of Positions
Job	Next level checked.	Original	Cost	Costed, Distributed	Manage Costing of Jobs
Department	Next level checked.	Original	Cost, Default, Suspense	Costed, Distributed	Manage Costing of Departments
Element Eligibility	Next level checked.	Original	Cost, Offset, Priority	Fixed Costed, Costed, Distributed	Manage Costing of Elements
Payroll	Last level checked for costing information. If costing setup information is not found for that segment and the resulting costing account number is incomplete, the entry is costed to a Default account or, if invalid, to the Suspense account	Original	Cost, Default, Suspense	Fixed Costed, Costed, Distributed	Manage Costing of Payrolls

This table lists the payroll processes that generate costing entries and describes the calculations.

Process That Generates Costing and Accounting Results	Description
Recalculate Payroll for Retroactive Changes	Calculates costing for retroactive changes that were not included in the original payroll run, and records the difference found between the original entry and the retroactive result.
Calculate Payroll	Calculates the costing for the payroll run results for payroll relationships after the run results are calculated.
Calculate QuickPay	Calculates the costing for the payroll run results for a payroll relationship processed by the Calculate QuickPay process for a single employee.

Reverse Payroll Calculation	Negates the costing results generated by the Calculate Payroll process by creating costing entries that offset the original entries. The process uses the effective date of the reversal process as the accounting date to avoid creating entries for a closed accounting period. The reversal creates an audit trail, unlike the rollback action which eliminates the audit trail by deleting the original entry.
Adjust Cost for a Person	Reallocates costing results to different accounts using a manual adjustment process. An offset entry is created for the original entry based upon the amount of the new entries created. A user can reallocate the entire costing result or part of it to one or more different accounts.
Costing of Balance Adjustment	Calculates the costing for the payroll run results of the Adjust Individual Balances process.
Calculate Retroactive Costing	Recalculates costing based upon retroactive changes to costing setups. The process compares the recalculated and original entries, and where different, offsets the original entries and creates new ones. The effective date of the process is used as the accounting date when transferring the results to general ledger.
Calculate Partial Period Accruals	Calculates accrual entries for a partial payroll period, prorating the costing results based on the previous results of a full period, and using as the accounting date, the date of the Partial Period Accruals process. The process also creates reversal entries with an accounting date of the payroll period end date. The process is often used when a payroll period overlaps two accounting periods.
Calculate Costing of Payments	Calculates costing for prepayments, QuickPay prepayments, and external payments. It also offsets the costing for voided payments by negating the original costing. If you reconcile payments, after payments have cleared the bank, the process creates entries that debit the clearing accounts and credit the cash accounts.
Transfer to Subledger Accounting	Creates subledger accounting events for each payroll relationship to identify the payroll costing entries that are transferred to Oracle Fusion Subledger Accounting when the Create Draft Accounting and Create Final Accounting processes are run.
Create Draft Accounting	Creates draft journal entries in Subledger Accounting. You can preview the journal entries before you run the Create Final Accounting process that transfers the entries to Oracle Fusion General Ledger.
Create Final Accounting	Creates final journal entries in Subledger Accounting. Creates journal entries, transfers the entries to Subledger Accounting, and transfers and posts them to Oracle Fusion General Ledger.

## Costs Distributed Across Payroll Run Results: How They Are Calculated

Many enterprises distribute the costs for employer taxes, charges, and liabilities over earnings elements, such as wages, overtime, and shift pay. When you set up costing, you specify the costing for the distributed element eligibility records, and identify which elements belong to the distribution group over which the costing results are allocated.

### Settings That Affect Distributed Payroll Costs

Several settings control how the costs for an earnings element are calculated:

- Element classification of the distributed element

The element classification determines whether you can include an element in a distribution group and whether its cost result generates a debit or credit entry. For example, deductions reduce the net pay which generates a credit entry.

- The distribution group for the distributed element specified on the **Manage Costing of Element** page

The application allocates the costing result of a distributed element over the costed run result values for the elements included in the distribution group. The distribution is based on the ratio each element contributes to the total for the distribution group.

- The primary output value specified on the **Manage Costing of Element** page

The application uses the primary output value as the input value when calculating the cost for the distributed element.

### How Distributed Payroll Costs Are Calculated

The application allocates the cost for the distributed element's run result value over the costed run result values for the elements in the distribution group. The application allocates the cost proportionately based on the amount each element contributes to the total for the distribution group. Only elements in the distribution group that produce actual run result values have costs distributed over them.

This distribution maintains the ratio that each element's costed run result value contributes to the total for the distribution group. For example, if a salary element contributes 70 percent of the total costed run results for the distribution group, the overtime contributes 20 percent, and the commission 10 percent, the application allocates 70 percent of the employer liability to the salary, 20 percent to the overtime, and 10 percent to the commission. If the distribution group does not include a run result value for the commission, then the application



distributes the liability cost over the two remaining elements proportionate to the amount each contributes to the total.

If none of the earnings elements produce actual results, the application enters the costing result for the distributed element in a suspense account.

The application creates cost and offset entries for distributed elements. The distribution depends on how you set up costing for the distributed element on the **Manage Costing of Element** page. If you:

- Set up element eligibility costing for the distributed element, the application adds the costing result proportionately to the elements in the distribution group using the standard costing hierarchy, except when it reaches the element eligibility level, the application replaces the cost flexfield segments of the elements in the distribution group with the segments specified for the distributed element.

For example, if the costing result for the overtime wage is costed to account 50.053.5130, and the account number for the distributed element is 5220, then the amount of the distributed element allocated to the overtime wage is costed to account 50.053.5220.

- Did not setup element eligibility costing for the distributed element, the application adds the costing result proportionately to the elements in the distribution group using the standard costing hierarchy.

For example, if the costing result for the overtime wage is costed to account 50.053.5130, then the amount of the distributed element allocated to the overtime wage is also costed to account 50.053.5130.

### Example

In the following example, the distributed element is the employer pension tax and the distribution group consists of the costed run result values for the regular and overtime wages for Departments 120 and 053.

This table lists the liability and expense accounts used in the example.

Account Classification	Account Name	Account Number
Liabilities	Wages Payable	2110
Liabilities	Pension Payable	2150
Liabilities	Employee Pension Payable	2151
Liabilities	Employer Pension Payable	2152
Expense	Regular Wages	5110
Expense	Overtime	5130
Expense	Employer Pension Tax	5220

This table shows the primary output values calculated for the employee's regular and overtime pay while working for two different departments.

Elements included in the	Division	Department	Hours	Rate (USD)	Primary Output Value	Percent Costed Run Result
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Distribution Group						Contributes to the Total for the Distribution Group
Regular Wages	10	120	30	10	300	61.2
Regular Wages	50	053	10	10	100	20.4
Overtime Wages	50	053	6	15	90	18.4

The employer and employee each contribute a rate of 6.2 percent of the employee's gross pay to the pension fund. In this example, the elements in the distribution group constitute the gross pay. The total for the elements in the distribution group is 490 USD. The employee and employer each pay 6.2 percent of the gross pay, or 30.38 USD. The employer's share is distributed over the elements in the distribution group.

This table shows the percentage of the distributed element allocated to each department based on the amount each element contributes to the total for the distribution group.

Distributed Element	Element in the Distribution Group	Division	Department	Percent Allocated Based on the Amount the Element Contributes to the Total of the Distribution Group	Distributed Amount (USD)
Employer Pension Tax	Regular Wages	10	120	61.2	18.60
Employer Pension Tax	Regular Wages	50	053	20.4	11.78
Employer Pension Tax	Overtime Wages	50	053	18.4	5.59

This table shows the costing entries calculated for the distributed element.

Costing Entries	Distributed element	Input Value	Distributed Input Value	Account Name	Division Department Account	Debit (USD)	Credit (USD)
Regular Wages		Pay Value		Regular Wages	10.120.5110	300	
Offset				Wages Payable	00.000.2100		300
Regular Wages		Pay Value		Regular Wages	50.053.5110	100	
Offset				Wages Payable	00.000.2100		100

Overtime Wages		Pay Value		Overtime	50.053.5130	90	
Offset				Wages Payable	00.000.2100		90
Employer Pension Tax	Employer Pension Tax		Liability Amount	Employer Pension Tax	10.120.5220	18.60	
Offset				Employer Pension Payable	00.000.2152		18.60
Employer Pension Tax	Employer Pension Tax		Liability Amount	Employer Pension Tax	50.053.5220	11.78	
Offset				Employer Pension Payable	00.000.2152		11.78
Employee Pension Tax		Liability Amount		Employee Pension Payable	00.0000.2000		30.38
Offset				Wages Payable	00.000.2100	30.38	

## Manage Object Groups

### Object Groups: Explained

Use object groups to define subsets of objects used for processing or reporting.

There are four types of object groups:

- Element
- Payroll Relationship
- Work Relationship
- Deduction Card

#### Element Groups

Element groups limit the elements processed for payroll, reporting, or cost distribution purposes.

There are two usages for an element group:

- Run group  
Specifies the elements to use in a process.
- Distribution group  
Defines the grouping of elements to distribute element costing results.

All element groups are static. You select the element classifications to add and then include or exclude additional elements from the group. Or you can select specific elements to include without using element classifications.

### **Payroll Relationship Groups**

Payroll relationship groups limit the persons processed for payroll, data entry, and reporting. When defining the group specify the payroll definition which retrieves the payroll relationships assigned to it. Every group is limited to the payroll relationships assigned to a single payroll that you select. You can further define the group statically or dynamically.

- If you define the group statically, select the payroll relationships, terms, and assignments to include or exclude in the group.
- If you define the group dynamically, use a fast formula of type Payroll Relationship Group to determine the criteria that determines the payroll relationships, terms, and assignments to include in the group. Then you can individually select additional payroll relationships, terms, and assignments to include in or exclude from the group.

### **Work Relationship Groups**

Work relationship groups limit the persons processed for human resources and reporting. For example, you can use work relationship groups in custom extracts. If you define the group statically, select the work relationships, terms, and assignments to include or exclude in the group. If you define the group dynamically, use a fast formula of type Work Relationship Group to determine the criteria that determines the work relationships, terms, and assignments to include in the group. Then you can individually select additional work relationships, terms, and assignments to include in or exclude from the group.

### **Deduction Card Groups**

Deduction card groups are read-only. They are automatically created when deductions cards are created. For example, in the UK, they are used for year-end processing.

## **Define Payroll Flow Patterns**

### **Payroll Flow Patterns: Explained**

A payroll flow pattern consists of a sequence of tasks, which represent the tasks you complete in each phase of the payroll cycle. You can use the predefined flow patterns or create new ones for tasks you normally perform during a payroll period.

When you create a flow pattern, you can:

- Include predefined tasks
- Rename tasks and reorder the task sequence
- Specify flow parameters that a person enters when submitting a flow

- Specify optional information, such as duration dates, notifications, task and flow ownership

The task pane of the payroll work areas include a task to submit a flow pattern. Submitting a flow pattern generates a payroll flow, which you can monitor from the Payroll Dashboard, and with a payroll checklist that lists the tasks on a single page, so that you can easily monitor, perform, and reassign the tasks to someone else.

## Include Predefined Tasks

Predefined tasks are the building blocks of flow patterns. Predefined tasks are associated to an activity, which corresponds to a phase of the payroll cycle, and optionally to a task group within the activity.

All payroll flow patterns begin with a start task and conclude with an end task. Flow patterns can include:

- A single task

The predefined tasks that form the building blocks of composite flows consist of single tasks that you can submit as standalone flows. You submit report and process single task flows using the Submit Report or Process Flow task in the navigation tree from the Payroll Checklist work area or the work area that corresponds to the task's activity.

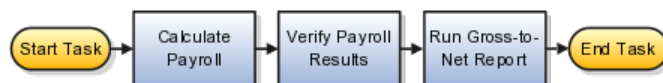
- Multiple tasks ordered in a sequence that corresponds to a phase of a typical payroll activity, such as the tasks involved in hiring someone or the tasks involved in paying people after running the payroll.

You submit flow patterns consisting of multiple tasks using the Submit Payroll Flow task in the navigation tree from the Payroll Checklist work area or the work area that corresponds to the activities for tasks included in the flow.

This figure shows a payroll flow pattern for a single task.



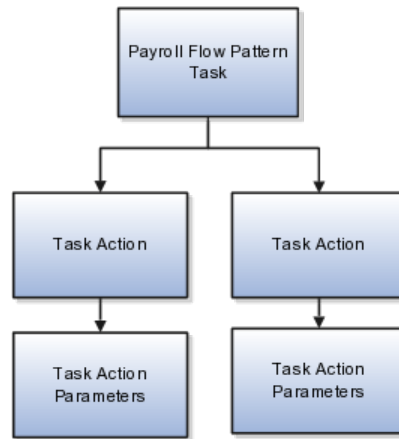
This figure shows a payroll flow pattern of several tasks.



## Task Action

Each payroll task has subordinate task actions. Task actions are based on the work the task performs and how it does this work within the application. They describe how the task is executed, such as submit, roll back, mark for retry, retry, and view. Each task action includes task parameters that control how the application processes a task and how the task relates to other tasks in the flow pattern. When you create a flow pattern, you can review the predefined task-action parameters and edit them, for example, to specify a different lookup value set.

This figure shows the relationship of a task to its subordinate task actions and their parameters.



### **Rename and Rearrange Task Sequence**

You can rename tasks on the Tasks Sequence page and add descriptions to tasks to more clearly identify their use. For example, if you have a payments flow pattern that includes two payment processes, you might add a manual task after each payment task, rename these tasks and add descriptions to reflect the type of payment and validation to perform.

The sequence in which you initially select the tasks for your flow pattern on the Basic Information page determines the order in which you view the tasks on the Task Sequence page. You can rearrange the order on the Task Sequence page, as well as remove and add tasks. For example, you might remove a report task from the Calculations activity and add it to the Statutory activity.

### **Specify Flow Parameters**

When you create a flow pattern, you specify flow parameters, the subset of input task parameters that a person submitting the flow enters and that the application uses to derive values needed to successfully complete the tasks included in the flow pattern.

### **Specify Optional Information**

You can specify optional information for a flow pattern, including when a task starts or is due, and which types of notifications to send the task owner, such as overdue reminders, and error and warning messages.

You can restrict who can perform the tasks in it by designating owners for specific tasks. After you create a flow pattern, you can control access to it by creating a security profile and associating it to the appropriate data roles.

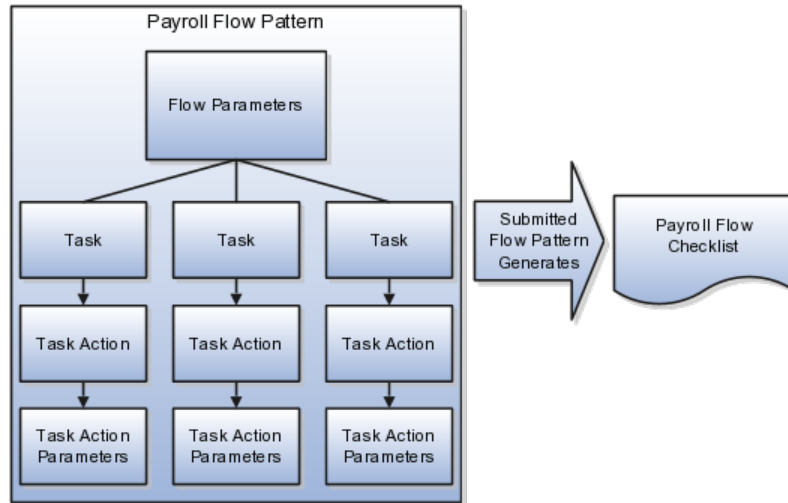
## **Payroll Flow Pattern Parameters: Explained**

The payroll flow pattern parameters capture the information necessary to complete the tasks in the flow pattern. Tasks parameters determine how the

application processes a task, and how the task relates to other tasks in the flow pattern. Flow parameters consist of a subset of the input task parameters that the person submitting the flow enters and that the application uses to derive values when processing the tasks in the flow pattern.

You can review and update the task and flow parameters for the flow patterns you create.

The following figure shows how the flow parameters are a subset of task-action parameters required to generate the entire payroll flow and complete the tasks successfully.



When you create a flow pattern, you review and update the parameters for the submission and initialization task actions. After you submit the flow pattern, you can edit the other task-action parameters, such as those for Mark for Retry, Retry, and Roll Back. The parameter details you can update include:

- Display and Display Format
- Lookups and Value Sets
- Usage
- Sequence
- Parameter Basis and Basis Value

### Display and Display Format

Display parameters determine whether someone can view and enter parameters and the format for displaying them.

The Display option controls whether the person submitting a standalone task flow can enter the parameter, add it as a search criteria to a work area Overview page, or view it in the Parameters region of the payroll flow.

The Display Format option identifies the type of data displayed, such as a date or text, or choice list. The Display Format works in conjunction with other parameters such as the Parameter Basis and Basis Value, and the Lookup and

Value Set details. For example, the Request parameter is not displayed because the application obtains it from the context.

## Lookups and Value Sets

Use lookups and value sets to control and validate the data used in the payroll flow pattern. Specify lookups for parameters and value sets for descriptive flexfields.

The following table describes the type of methods used for lookups.

Method	Parameter Basis
Person submitting the flow enters the lookup value from a smart list or choice list	Bind to Flow Parameter
Application derives the value from existing tables, such as the value for the payroll statutory unit	Bind to Flow Task Parameter or Bind to Context
Application obtains the value based on a Post SQL process, such as a consolidation group	Post SQL

If you create value sets for descriptive flexfields to validate the values someone can enter for the parameter, you can specify that value set.

## Usage

A parameter can receive information (input) or generate information (output) that subsequent tasks can use as input. For example, the Calculate Payroll Submit task action includes a Payroll Process parameter that generates an output value for the payroll action ID which is used as an input for the Calculate Payroll Retry task action.

Parameters that use the output of other tasks are not usually displayed in the UI. If the parameter is an output parameter, then the type of binding is Bind to Flow or null. If the binding is:

- Bind to Flow, the default value is picked up from the flow parameter and the output value is updated in the flow parameters table which is consumed as the flow's output. The parameter is not shown in the flow submission.
- Null, the value is the result of a task's output

## Sequence

You can control the order in which the application processes and displays the parameters by specifying the sequence. Sequence numbers provide the application with the default logic to derive the parameter order in which to process the parameters. For example, if you have two lookups and the values of the second lookup depends on the value selected for the first lookup, the first lookup would have a lower sequence number than the second lookup. For example, in the Calculate Payroll task, the lookup for the Payroll parameter would have a lower sequence number than the lookup for the Payroll Period



parameter, so that the values for the Payroll Period list the payroll periods defined for the selected payroll.

### Parameter Basis and Basis Value

The Parameter Basis tells the application how to derive the value for the parameter and the Basis Value further specifies the value the application should use for the parameter.

The following table lists the Parameter Basis options and gives examples of when you might select them.

Parameter Basis	Description	Basis Value	Example
Use Specified Value	Assigns a specific value to the parameter.	Value is entered or selected by user.	Use a constant if the value is the same for all tasks. For example, if you have only one payroll statutory unit, select Use Specified Value as the basis for the payroll statutory unit parameter and enter the text for the payroll statutory unit as the Basis Value.
Bind to Context	Derives the value from the context of the current flow instance or the task instance of the flow pattern.  Context information available on the Overview page of the work area depends on whether the Bind to Context is based on the payroll task or payroll flow. The Add fields are derived based on the parameters for the tasks relevant to the work area.	Value is based on the payroll flow, payroll task, or the Request. The application automatically generates the value.	Bind the Request parameter to the payroll flow context so that other tasks in the flow can reference the task, based on the Request ID which the application generates when the task is submitted.  Bind the legislative data group parameter to a task parameter that supplies the legislative data group. For example, the legislative data group for prepayments uses the payroll as context, because the payroll definition includes the legislative data group.
Bind to Flow Parameter	Derives the value from one of the flow parameter values.	Value is selected from the flow parameters.	Bind parameters to the flow that several tasks share to avoid multiple occurrences of the same parameter.
Bind to Flow Task Parameter	Binds the value to the output of the previous task.	Value is selected from the previous task's parameters.	Bind a parameter to a task, such as Retry corrective action, so that when the flow owner resubmits the task to retry it, the application uses the output of the Submit task parameter.

Bind to Task Parameter	Resolves the value for the task parameter.	Value is selected from the current task's parameters.	If several tasks share a parameter, such as a start date, but one task requires a different date, bind the parameter to the task.
Null	Stops the application from generating a parameter value when the task executes.	Parameter generated by the application is blank.	
Post SQL Bind	Calculates the parameter but does not display it on the user interface.	SQL statement	<p>Use Post SQL bind to generate data. For example, if the process date is not displayed as a flow parameter, the person submitting the flow does not enter it. Use a post SQL process to generate the process date from the payroll period and payroll parameters.</p> <p>Predefined tasks such as Costing of Payments and Gross-to-Net reports determine the Basis Value for the Consolidation Group using Post SQL bind.</p>
SQL Bind	Before the parameter is rendered the value is calculated and displayed on the user interface.	SQL statement	<p>Use SQL bind, for example, to have the application calculate the payment type parameter for the Generate Check Payment task by obtaining the payment type ID that corresponds to the record queried for that check payment.</p> <p>Another example of the SQL bind is to prompt the task owner to enter a reason for a corrective action, such as a QuickPay.</p>

## Payroll Flow Pattern Tasks Start and Due Dates: Critical Choices

You can specify the start and due date for any task in the flow pattern by selecting a duration date and further adjust the start or due date by entering an offset. The application then uses the resulting dates as a basis for sending notifications, such as overdue reminders. The list of values for the duration dates consists of the dates specified as flow level parameters, such as process date or date earned.

By specifying duration dates and notifications, you can ensure that task owners have adequate time to prepare material before the task starts or to address issues that arise before the task is due. Notifications with details about the task are sent by e-mail or to the worklist and are also displayed in the Payroll Dashboard.

### **Task Start and Due Dates**

When a person submits a payroll flow, the payroll flow task begins after the completion of the previous task unless you schedule the task by entering a start date. The due date sets the date by which the task owner should complete the task.

You can control the start or due date by specifying:

- The flow parameter date to use as the basis for the duration date  
If you schedule a start date when the previous task concludes successfully, if the next task is an automatic task, the application waits to begin the task until the start date is reached. If the next task is a manual task, the task owner can wait or begin the task ahead of its scheduled start date.
- An offset to indicate the number of days from the flow parameter date that the duration date should occur  
You can specify a plus or minus value depending on whether you want the date to fall before or after the duration date.

### **Notifications**

Select notifications to have the application send error and warning messages to the task owner, as well as notifications that a task has started or ended or is overdue.

The receipt of notifications about the start date or due date depends on the dates and their offsets. For example, if the process date is the date paid, you might specify an offset of 3 days in advance of the process date for the verification of the prepayment results to give the task owner adequate time to review the results and make any necessary corrections before generating the payments.

You can specify the amount of time before payroll flow notifications generated by the payroll flow expire. A Notification Expiration Offset parameter on the Manage Payroll Process Configuration page controls the number of days before a payroll flow notification is automatically deleted.

## **Managing Corrective Tasks in a Payroll Flow Pattern: Points to Consider**

Most predefined process and report tasks support corrective task actions such as retrying or rolling back a task. Corrective payroll and payment tasks are usually submitted as separate flows. For example, the Cancel Payment flow pattern includes tasks to view the person process results, void the payment, process an external payment to prevent reissue of the original payment, and reverse the original payroll run calculations to negate the run results.

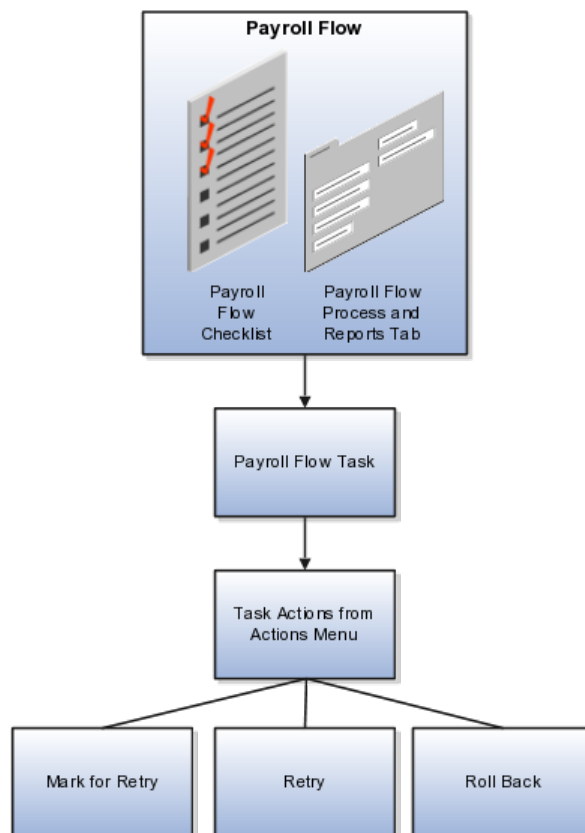
Before adding a corrective task to your flow pattern, consider whether people working with a flow based on your pattern will correct errors by:

- Selecting task actions from the Actions menu at the task level or individual record level
- Submitting a flow pattern that combines corrective tasks

## Using Corrective Task Actions in a Flow Pattern

You do not need to incorporate task actions for payroll and payment corrective tasks in your flow pattern, such as marking for retry, retrying, reversing, or rolling back processes and report results. Most tasks support these task actions at the task level or individual record level. The type of task and the status of the task and resulting records determine which actions you can select from the Actions menu on the View Person Process Results page or from the Payroll Checklist or Processes and Reports tab of the payroll flow.

The following figure shows the task actions such as Mark for Retry, Retry, and Roll Back that you can choose as task actions from the Actions menu when working on the Payroll Flow Checklist or the Processes and Reports tab of the payroll flow.



## Corrective Flow Patterns

If you have sequential tasks you perform to correct a problem, you can create a flow pattern that consists of those tasks. For example, a flow pattern to reissue a lost check might include tasks to void the payment, issue an external payment, and view the person process results.

# Payroll Flow Checklist and Flow Tasks: Explained

The payroll flow pattern determines the sequence of payroll flow tasks executed in a payroll flow. Submitting a payroll flow generates a payroll flow checklist.

You can manage a payroll flow by working in:

- The Payroll Checklist work area
- Other payroll work areas for the specific activity phase

## Payroll Checklist Work Area

The payroll flow checklist contains the payroll flow tasks required to complete each activity phase of the payroll: preparation, calculation, payment distribution, accounting, and regulatory reporting.

A payroll flow task by default is associated to an activity, but it can recur in the same activity. For example, a payment distribution flow pattern might include a verification task after each type of payment, such as EFT payment and check payment.

The payroll flow checklist shows you the progression of the individual tasks that comprise the payroll flow. You can use the checklist to monitor the status of the payroll flow tasks and to manage the tasks. The checklist owner or flow task owner manages the flow tasks, for example, by reassigning tasks, revising due dates, marking tasks as complete, and performing actions the task supports, such as roll back and retry.

From the payroll checklist, you can navigate directly to the payroll flow task details. For example, you can navigate from the payroll calculation task directly to the Person Process Results page to view a list of workers processed in the payroll run.

## Other Payroll Work Areas

While working with payroll flows, you can remain in the Payroll Checklist work area or navigate to the other payroll work areas to work on payroll flow tasks and access related payroll tasks.

The activities in the payroll flow checklist correspond to the individual payroll work areas. Each payroll work area includes additional tasks to manage the information processed for that phase of the payroll. For example, the Accounting Distribution work area includes tasks to view journal entries and revise cost allocations, and the Payroll Calculation work area includes tasks to manage payroll relationship information.

# Creating a Payroll Flow Pattern to Reissue a Check: Worked Example

This example demonstrates how to create a payroll flow pattern to issue a replacement check that an employee lost or did not receive.

The following table summarizes the key decisions for this scenario.

Decision to Consider	In This Example
What activities do you want to include in the flow pattern?	Calculation and Payment activities
What tasks do you want to include in the flow pattern and in what sequence?	Verify a Payment, Void Payment, Generate Check Payment
Do you want to assign an owner to the flow?	InFusion Payroll Manager
Do you want the flow owner to receive notifications?	Error and Warning notifications
Do you want to override the task or flow parameters?	Process Configuration Group parameter for the Void Payment task

## Create the Payroll Flow Pattern

1. In the Payroll Checklist work area, select the Manage Payroll Flow Patterns task from the task pane.
2. On the Manage Payroll Flow Patterns page, click the **Create** icon.
3. Select the legislative data group, and click **Continue**.
4. On the Create Payroll Flow Pattern: Basic Information page, complete the fields, as shown in this table.

Region	Field	Value
Basic Information	Flow Pattern	InFusion Reissue Check
Activities	Activities to Include	Payment
Tasks	Available Tasks	Void Payment, Generate Check Payments, Verify a Payment

5. Click **Next**.
6. On the Create Payroll Flow Pattern: Tasks page, select the Verify the Payment task.
7. In the Owner and Checklist region, click the Owner field.
8. Select an owner.
9. Click **Next**.
10. On the Create Flow Pattern: Tasks Sequence page, confirm the order in which the tasks occur: Verify a Payment, Void Payment, Generate Check Payment.
11. Correct the sequence of tasks, if necessary. Select the row, click the **Edit** icon, and select a different following task. Repeat this process for each task.
12. Click **Next**.
13. On the Create Payroll Flow Pattern: Flow Parameters page, click the **Select and Add** icon.
14. In the Select and Add window, select the parameters, as shown in this table.

You can select multiple parameters from the Select and Add window.

Field	Value
Void Payment	Start Check Number, End Check Number, Process Configuration Group, Process Date, Payroll Process, Reason  <b>Note</b>  With the exception of the Reason parameter, these task parameters are used by the Generate Check Payment task. Add them only once as flow parameters to cover both tasks.
Generate Check Payment	Payroll, Start Date, Consolidation Group, Organization Payment Method, Overriding Payment Date, Payment Source, Payment Type

15. Select the row for the Process Configuration Group flow parameter and click the **Edit** icon.
16. Edit the flow parameters as shown in this table:

Field	Action
Display	No
Display Format	Text
Lookups	blank
Parameter Basis	Use Specified Value
Basis Value	InFusion Process Configuration Group

17. Click **Next** to display the Create Payroll Flow Pattern: Task Parameters page.  
You do not need to edit the Process Configuration task parameter. The application uses the details specified for the flow parameter, not the details specified for the task parameter.
18. Click **Next**.
19. On the Create Payroll Flow Pattern: Review page, preview the resulting payroll checklist.
20. Click **Submit**.

## Editing Payroll Flow Patterns: Points to Consider

The activities of a payroll cycle include predefined tasks that you can include or exclude to correspond to the way in which your enterprise typically processes payroll. When you create a payroll flow pattern or edit it later, you can revise the initial list of tasks. You can add and delete tasks, move them to a different activity, rename them, and edit their descriptions.

## Editing Tasks

You can edit flow patterns you create, but not predefined flow patterns. While editing flow patterns, it is helpful to keep in mind the following points when you add, delete, or move a task.

- Add a task

Adding a new task automatically places it at the end of the sequence of tasks for that task group or activity. Update the task sequence so that this task occurs in the order in which you want it processed.

- Repeat a task used previously

When you repeat a task, the task name is the same. Rename it to more easily understand its purpose in the payroll checklist. For example, if different managers review report results, you might repeat a verification task and rename them to identify the type of report results the manager will review.

- Delete a task

Deleting a task may impact tasks that depend on the results of the deleted task. Review the subsequent tasks to ensure, for example, that a task parameter is not Bind to Task with the deleted task specified as its Value.

- Move a task to a different activity

The activity determines the availability of the flow from a work area. For example, if you move a reporting task from the Payments activity to the Statutory activity, the person working with the payroll flow can view the report results from the Checklist or Regulatory and Tax Reporting work area, but not the Payments work area.

## Editing Payroll Flow Patterns: Examples

Use these scenarios to understand the types of updates you might make to a flow pattern.

### Updating a Parameter to Use a Specified Value

The payrolls you run use a single Process Configuration Group. On the Parameter tab for the Calculate Payroll task, you can update the flow parameters to specify the name of that configuration group so that the person submitting the payroll flow does not have to complete that information but relies on the application to supply the value.

The following table lists the values to enter for the task parameter details for the Calculate Payroll task to enter a constant for the Process Configuration Group.

Parameter Detail	Value
Display	No
Display Format	Text
Lookup	blank
Usage	Input Parameter



Parameter Basis	Use Specified Value
Basis Value	Name of the Process Configuration Group

### Supplying a Reason for a Corrective Action

You have decided to add the Reason parameter to one of your tasks to better track why managers submit standalone tasks during a payroll cycle.

The following table lists the values to enter for the task parameter details for the Calculate QuickPay task to enter a reason for processing the task.

Parameter Detail	Value
Display	Yes
Display Format	Text
Lookup	blank
Usage	Input Parameter
Parameter Basis	Bind to Flow Parameter
Basis Value	Reason

After completing the task parameter information, you would add the Reason parameter as a flow parameter, so that the user completes the Reason when submitting the flow.

### Adding Tasks and Reordering the Task Sequence

Your flow pattern includes payroll calculation reports. You decide that you need to run specific reports such as Gross-to-Net report before other reports such as the Element Register report and to validate the results of each report before the application runs the next report. You can rearrange the sequence of reporting tasks, add a manual verification task after each report, and rename the manual tasks to more clearly identify them, such as Verify Gross-to-Net Report and Verify Element Register Report.

## Editing a Payroll Flow Pattern: Worked Example

This example demonstrates how to edit a QuickPay flow pattern that you have created so that a person whose role carries a specific level of authority reviews the prepayment results before the flow owner generates the payment.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In this Example
Which role should own the Verify Prepayments Result task?	Payroll Manager Operations
When does the task become overdue?	One day before the process date

### Prerequisites

1. Create a QuickPay flow pattern.
2. Include the same tasks and flow parameters as the predefined QuickPay flow pattern.

## Specifying a Task Owner

1. In the Payroll Checklist work area, click the Manage Payroll Flow Patterns task from the task pane.
2. On the Manage Payroll Flow Patterns page, search for the QuickPay flow pattern that you created.
3. In the search results region, click the **Edit** icon on the row of your QuickPay flow pattern.
4. On the Tasks tab, select the Verify Prepayment Results task, and click the **Edit Task** icon.
5. On the Edit Task Details: Basic Information page, click **Next**.
6. On the Edit Task Details: Owner and Checklist page, select a role or a user name.
7. Click **Next**.
8. On the Edit Task Details: Duration and Notifications page, in the Duration region, complete the fields, as shown in this table.

Field	Value
Due Date	Process Date
Offset	-1

9. In the Notifications region, complete the fields, as shown in this table.

Field	Value
Flow Task Start Notification	Yes
Overdue Notification	Yes

10. Click **Submit** to submit your changes, and to return to the Manage Payroll Flow Patterns page.
11. On the Manage Payroll Flow Patterns page, click **Submit**.

## FAQs for Manage Payroll Flow Patterns

### Can I edit a locked flow pattern?

You cannot edit predefined single or composite flow patterns, but you can edit payroll flow patterns that you create. For example, if all your payrolls reference the same legislative data group, you could edit the legislative data group flow parameter for your payroll cycle flow, and select the Parameter Basis as Use Specified Value, the Display Format as text, and then enter the name of the legislative data group for the Basis Value.

### Can I skip the flow parameters for a single-task payroll flow pattern?

No, you must specify the flow parameters required to successfully complete the task. You can also include optional parameters that the person submitting the

flow enters, or that the application can derive from the information entered for the required parameters.

### **How can I rearrange tasks in a flow pattern?**

Edit the task sequence by selecting a different task in the Following Task column. Every payroll flow pattern begins with a Start Flow task, which does not belong to an Activity or Task Group. The payroll flow concludes with the End Flow task, which is listed for the last task in the Following Tasks column.

The sequence in which you select the tasks for a flow pattern on the Create Flow Pattern: Basic Information page determines the order of the tasks displayed on the Task Sequence page. Edit this task list on the Task Sequence page by selecting a different following task for the task you want to reposition. Confirm the order of the tasks on the Review page before submitting the flow pattern.

### **What happens if I don't enter a task owner in a payroll flow pattern?**

The person who submits the payroll flow becomes the payroll flow owner and the task owner. The person's security privileges determine whether the person can submit the payroll flow.

### **When do I enter a destination for a payroll flow task?**

Enter a destination URL for a task when the task type is the application interface, such as the batch loader, or user interface, such as a page in the user interface where the task owner views process and report results.

### **Why did the payroll flow pattern duration dates not display?**

The payroll flow pattern duration dates for the start and due dates are based on the flow parameter dates. Enter the flow parameters and then navigate back to the Tasks page to enter the duration dates and the offsets for those dates.

If your flow pattern does not specify dates as flow parameters, the duration list of values is blank.

## **Manage Payroll Process Configuration**

### **Payroll Process Configuration Groups: Explained**

Payroll process configuration groups provide sets of payroll action parameters, primarily related to logging and performance, for your processes and reports. When you run a process, you can select a process configuration group. If you do not select a process configuration group, the application uses the parameters in the default group.

You must specify the default group in the Process Configuration Group ACTION\_PARAMETER\_GROUPS profile option. You can set the profile option in the Setup and Maintenance work area using the Manage Default Process Configuration Group Profile Option Values task or the Manage Administrator Profile Values task.

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#### **Note**

Entering a value for this profile option is a required step. The value of the Payroll License parameter in the process configuration group selected in the profile option determines the element templates used in the Manage Elements task and

whether deduction cards are created automatically for new employees when you hire them.

A default process configuration group is predefined. You can edit the predefined group on the Default Group tab of the Manage Payroll Process Configuration page. You can select this group or another one as the default for your sites using the Process Configuration Group ACTION\_PARAMETER\_GROUPS profile option.

You can also create as many additional groups as you require on the Group Overrides tab on the Manage Process Configuration Group page. For example, you might want to create a group with the logging parameters turned on to troubleshoot processes. You can also specify different performance parameter values (such as chunk size and buffer size) for running different processes.

## Payroll Process Configuration Group Parameters

Payroll action parameters are system-level parameters that control aspects of the payroll batch processes. The effects of setting values for specific parameters may be system wide. Payroll batch processes read values from the PAY\_ACTION\_PARAMETERS table on startup, or provide appropriate values by default, if specific parameter values are not specified.

For some parameters you should understand the concept of array processing and how this affects performance. Values for each parameter are predefined with the system, but you can override these values as part of your initial implementation and for performance tuning. Use the Manage Payroll Process Configuration task in the Setup and Maintenance work area.

The following table describes action parameters and lists values and predefined default values:

Parameter	Description	Values	Default Value
Balance Buffer Size	Used for array inserts and updates of latest balances, based on one row per balance.	Maximum: 1000. Minimum: 1.  <b>Note</b>  If your trace files show differences between execute and fetch timings, look at the buffer sizes you are using. Try setting each of these to 100.	500
Shuffle Chunk Processing	Random processing of order chunks for assignment actions.	Yes, No	No
Chunk Size	Number of payroll relationship actions processed together.	Maximum: 16000. Minimum: 1.	20
Cost Buffer Size	Used for array insert and select statements when calculating the costing of the payroll run results.	Maximum: 1000. Minimum: 1.	500

Element Entry Buffer Size	Buffer size used in the initial array selects of element entries, element entry values, run results, and run result values per assignment.	Maximum: 1000. Minimum: 1.	500
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Formula Execution Logging	Code area where logging is performed.	<p>The action parameter mechanism is only available for formula logging in the Payroll run. It is possible to perform logging with a combinations of characters. For example, the 'di' string corresponds to the logging of database item cache access and formula input and output values.</p> <hr/> <p><b>Note</b></p> <p>The dump logging options should only be used in rare circumstances, especially the T trace option, which generates very large amounts of data that would significantly slow down processing.</p> <hr/> <p>d = database item cache access</p> <p>D = database item cache dump</p> <p>f = formula cache access</p> <p>F = formula cache dump</p> <p>i = formula input/output values</p> <p>w = working storage area access</p> <p>W = working storage area dump</p> <p>n = nested calls</p> <p>c = change contexts</p> <p>s = SQL execution (database item and PLSQL formula function calls)</p> <p>m = miscellaneous</p> <p>T = trace (very large level that provides the inputs and outputs of every call made when executing a formula)</p> <p>1 = level 1 (combination of i, m, f, and C)</p> <p>2 = level 2 (combination of 1, d, w, c, and n)</p> <p>3 = level 3 (combination of 2, s, and T)</p>	No logging.
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Logging Area	Area where code logging can be performed.	The values correspond to c-code entries in the form PY_ENTRY (env, pyipppr); where pyipppr is the functional area that will have logging enabled.	<b>Note</b> If this isn't set, logging is not limited to a particular code area if logging is enabled by the Logging Category pay action parameter.
Assignment ID to End Logging	Assignment ID that ends logging.		All assignments
Assignment ID to Start Logging	Assignment ID that starts logging.		All assignments
Logging Category	Helps investigate problems with large volumes of detailed data.	GMPE or blank for no logging. You can specify multiple values.	No logging.
Maximum Number of Payroll Relationship Actions to Roll Back	Number of payroll relationship actions that can be rolled back, when rolling back a process.	Minimum: 1	50
Maximum Errors Allowed	Number of payroll relationship actions that can be rolled back, when rolling back a process.	Minimum: 0	CHUNK_SIZE or 20
Maximum Iterations Allowed per Run Action	Maximum number of iterations allowed per run action within Net to Gross calculations within the Payroll Run.	Minimum: 0	15
Notifications Expiration Offset	Number of days before a payroll flow notification is automatically deleted.		
Payroll License	Provides features, such as element templates, appropriate to selected product license.	PAYROLL, HR_ONLY, and PAYROLL_INTERFACE.	HR_ONLY
Process Timeout	Number of minutes before the Run Balance Generation process times out.	Minimum: 0	If not specified, no timeout limit is enforced.
Remove Report Assignment Actions	Removes report processing actions after reports are generated.	Yes, No	Yes
Run Result Buffer Size	Used for array inserts and updates, based on 1 row for each payroll run result.	Maximum: 1000. Minimum: 1.	500
Override Location for Tax Libraries	Directory location for Quantum tax libraries.	There are no set values. Values for this parameter would be directory structures on the client site.	\$VERTEX_TOP/lib

Accounting Date for Transfer to General Ledger	Date earned or date paid, used to transfer and post journal entries for costing results to Oracle Fusion General Ledger.	E = date earned P = date paid	P
Reversal and Balance Adjustment Accounting Date	Accounting date based on the process date of reversal or balance adjustment or the process end date of the Transfer to Subledger Accounting task, which is used to transfer journal entries for costing results to Oracle Fusion General Ledger.	T = transfer using end date of the Transfer to Subledger Accounting task as the accounting date  P = use process date of the reversal or balance adjustment as the accounting date	P
Threads	Total number of subprocesses that can run from the Oracle Enterprise Scheduler Service.	Minimum: 1.	1
Wage Basis Rules Buffer Size	Used in array selects from the PAY_TAXABILITY_RULES table within the Payroll Calculation process.	Minimum: 100	500
Trace	Enables the database trace facility for application processes written in C only.	Yes, No	No
Trace Level	Sets the trace level of the trace event. To generate the finest level of detail, enter the highest value.	1, 4, 8, 12	None
User Messaging	Enables detailed logging of user-readable information to the PAY_MESSAGE_LINES table.	Yes, No	No

### ***Parallel Processing Parameters***

#### **THREADS**

Oracle Fusion Global Payroll is designed to take advantage of multiprocessor machines. This means that you can improve performance of your batch processes by splitting the processing into a number of threads, or subprocesses, which run in parallel.

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#### **Note**

Using threads and subprocesses may also improve performance if you are using PAYROLL\_INTERFACE.

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When you submit a batch process, the THREADS parameter determines the total number of subprocesses that run concurrently. The process submits THREADS minus 1 subprocesses.

Set this parameter to the value that provides optimal performance on your server. The default value of 1 is set for a single-processor machine. Benchmark



tests on multiprocessor machines show that the optimal value is approximately 2 processes per processor. So, for example, if the server has 6 processors, you should set the initial value to 12 and test the impact on performance of variations on this value.

### **CHUNK\_SIZE**

Size of each commit unit for the batch process. This parameter determines the number of assignment actions that are inserted during the initial phase of processing and the number of assignment actions that are processed at one time during the main processing phase. Parameter values range from 1 to 16,000. The default value is 20.

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#### **Note**

This does not apply to all processes, such as Generate Check Payments and Retroactive Pay.

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During the initial phase of processing, this parameter defines the array size for insert. Large chunk size values are not desirable and the default value has been set as a result of benchmark tests. Each thread processes one chunk at a time.

### ***Logging Parameters***

During implementation and testing, you may need to turn on logging to provide a large volume of detailed information that is useful for investigating problems. Use this parameter only when you need to investigate problems that are not easily identified in other ways. The logging activities can impact the overall performance of the process you are logging. Usually, this feature is needed during your initial implementation and testing before you go live. In a normal operation you should disable detailed logging.

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#### **Note**

If you need to contact Oracle Support for assistance in identifying or resolving problems in running your payroll processes, you should prepare your log file first. Define the logging category, area, and range of assignments before resubmitting the problem.

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## **LOGGING**

Logging categories define the type of information included in the log. You can set any number of these categories by specifying multiple values so you can focus attention on specific areas that you think may be causing a problem. Parameter values are one or more logging categories, as described below. The default value is No logging.

The following table explains each logging category:

Parameter Value	Logging Category	Description
B	Balance Information.	Provides output information that shows the creation and maintenance of balances used during payroll processing.
C	C cache structures information.	Provides output information that shows details of the payroll cache structures and changes to the entries within the structure. While working on a service request, Oracle may ask you to use this parameter to gather additional information.

E	Element entry information.	Provides output information that shows the state of the element entries in the process memory after the entries have been retrieved from the database. The information is provided whenever data for an entry is changed during processing.
F	Formula information.	Provides output information that shows details of formula execution, including formula contexts, inputs, and outputs.
G	General logging information.	Provides general information, rather than a specific information type. This parameter does not provide sorted output. In general, it is recommended that you choose parameters that provide specific types of information.
I	Balance output information.	Provides output information that shows details of values written to the database from the balance buffers.
L	Balance fetching information.	Provides output information that shows the balances retrieved from the database and whether or not the process will use those balances. (If balances such as Year To Date totals have expired because the year has changed, the process resets them and uses the new balance.)
M	Entry or exit routing information.	Provides output information to show when any function is entered and exited. The system may display messages such as In: pyippee and Out: pyippee. This information is indented to show the call level, and can be used to trace the path taken through the code at the function call level. Often, this information is useful when attempting to track down a problem such as a core dump.

P	Performance information	Provides output information to show the number of times certain operations take place at the assignment and run levels and why the operation took place. This parameter is often used to balance the buffer array write operation.
Q	C cache query information.	Provides output information that shows the queries being performed on the payroll cache structures. While working on a service request, Oracle may ask you to use this parameter to gather additional information.
R	Run results information.	Provides output information that shows details of run results and run result values just as they are about to be written to the database from the Run Results buffer or the Values buffer. This enables verification that the buffer contents were correct.
S	C cache ending status information.	Provides output information that shows the state of the payroll cache before the process exits, whether that process ends with success or an error. While working on a service request, Oracle may ask you to use this parameter to gather additional information.

T and Z	PL/SQL detail and PL/SQL output.	To obtain detailed information about the PL/SQL calls made by the Payroll application, use the combination of the T parameter and the Z parameter. This combination is typically useful for obtaining information about payroll processes that use a large amount of PL/SQL code, such as prepayments and archive. The output from using these parameters is buffered while the process is running and is placed at the end of the log file after processing is complete. Each payroll process instance has its own log file, located under the log subdirectory for the particular process ID.
V (USA and Canada only)	Vertex tax calculation information.	Provides output information that shows the values being passed in and out of a third-party Vertex tax engine. This parameter also provides a separate file in the Out directory that shows the internal settings of the Vertex engine. This logging option is available to customers in the USA and Canada only.

## Payroll License Configuration: Critical Choices

The Payroll License parameter on the Manage Payroll Process Configuration page has three allowable values that determine how payroll-related features function within Oracle Fusion Applications. You must ensure that the value for the Payroll License parameter in your default configuration group is appropriate for your licensing agreement.

The three allowable values for the Payroll License parameter for the following product licenses are:

- Oracle Fusion Global Payroll: `PAYROLL`
- Oracle Fusion Global Payroll Interface: `PAYROLL_INTERFACE`
- Other HCM Products: `HR_ONLY`

### Global Payroll

Global Payroll customers must set the Payroll License parameter to `PAYROLL` to ensure the complete set of payroll-related element templates is available

when creating elements. These element templates assist in element creation and automatically create and generate fast formulas for new elements. Elements created without this set of element templates will not be suitable for costing or payment processing in Global Payroll.

The PAYROLL license setting also prevents any organization payment methods without a payment source from being associated when creating payroll definitions, which reduces potential problems during payment processing. For some localizations, the PAYROLL license setting enables deduction cards to be automatically generated as part of the new-hire process.

### **Global Payroll Interface**

Global Payroll Interface customers must set the Payroll License parameter to PAYROLL\_INTERFACE to ensure the correct set of element templates is available. Earnings elements created without this license setting will not automatically generate the associated features, such as the formulas and balances required when calculating gross earnings for employees.

### **Other HCM Products**

Customers of other HCM products must set the Payroll License parameter to HR\_ONLY to ensure the correct set of element templates is available. These element templates are simplified to facilitate creating elements to capture just the required information. Elements created without this license setting will include formulas and balances, which are required for payroll purposes but are unnecessary for HR purposes.

## **FAQs for Manage Payroll Process Configuration**

### **How can I improve performance and troubleshoot payroll processes?**

Add parameters to a payroll process configuration group to optimize performance and troubleshoot your payroll processes. To process large volumes of records, use the Threads and Chunk Size parameters. To troubleshoot processes, add the Logging Category or Formula Execution Logging parameters to a configuration group and rerun the process using that configuration group. Using these parameters enables you to investigate formula code problems.



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## Define Elements, Balances, and Formulas

### Define Elements, Balances, and Formulas: Overview

The Define Elements, Balances, and Formulas task list contains the tasks required for creating payroll elements for compensation and HR management. You can use this task list if you are recording earnings, deductions, and other payroll data for reporting, compensation and benefits calculations, or transferring data to a third-party payroll provider.

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#### Note

If you are using Oracle Fusion Global Payroll, use the Define Payroll task list instead. The Define Payroll task list includes additional tasks required to set up payroll processing.

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The Define Elements, Balances, and Formulas task list is included in the Workforce Deployment and Compensation Management offerings. These offerings contain other tasks that must be completed first. In particular:

- Ensure that you have defined the payroll statutory units that you require using the Manage Legal Entities task.
- Associate a legislative data group with each payroll statutory unit using the Manage Legal Entity HCM Information task.

Performing these tasks ensures that payroll relationship records are created automatically when you hire employees. Employees must have a payroll relationship so that you can create element entries for them.

The Define Elements, Balances, and Formulas task list includes the following tasks.

#### Configure Legislations for Human Resources

Use this task to create rules for legislations not initially provided by Oracle. It guides you through configuring some payroll objects and values required for creating elements. These include tax year start date, period of service on rehire rules, default currency, element classifications, and payment types. Complete this task before the other tasks in this task list.

#### Manage Consolidation Groups

You must have at least one consolidation group for each legislative data group for which you are defining elements. A consolidation group is a required value when you create payroll definitions.

## Manage Organization Payment Methods

If you want to record personal payment methods for your employees, you must create organization payment methods and associate them with your payroll definitions. Organization payment methods define the combination of payment type and currency to use for payments to employees or external parties.

## Manage Payroll Definitions

Employees must be assigned to a payroll if you want to create element entries for them. The payroll definition determines the payroll period end date, which is the end date of nonrecurring element entries. You create at least one payroll definition for each payroll frequency, such as weekly or semimonthly, within a legislative data group.

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### Note

If you are creating elements for coexistence only, to pass basic compensation data from your source application, you do not need to create payroll definitions. You must create recurring elements only.

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## Manage Element Classifications

Primary element classifications are predefined. If you run the Calculate Gross Earnings process (provided with Oracle Fusion Global Payroll Interface), you might create subclassifications to feed user-defined balances.

## Manage Fast Formulas

You can write formulas for a number of uses, including validating user entries into element input values, and configuring compensation, benefit, and accrual plan rules. If you use the Calculate Gross Earnings process, you can write payroll calculation and element skip rule formulas for earnings elements. The payroll calculation formula calculates the periodic value to be passed to the third-party provider.

## Manage Balance Definitions

Most of the balances you require are predefined. You can create additional balances for reporting or system extracts. If you are using Global Payroll Interface, additional balances are created automatically when you create earnings elements. You can edit the definition of these generated balances.

## Manage Elements

Use the Manage Elements task to create earnings and deductions. Create each element and then edit it to create or edit input values and at least one element eligibility record. You can also create balance feeds. If you run the Calculate Gross Earnings process, you can add a status processing rule to associate an earnings element with a formula.

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### Note

Make sure the Payroll License parameter in the default process configuration group is set to the appropriate value (HR\_ONLY, PAYROLL\_INTERFACE, or PAYROLL) before you start creating elements. This parameter determines which element templates are available to you and therefore which objects are generated when you create an element. The default process



configuration group must be specified in the Process Configuration Group (ACTION\_PARAMETER\_GROUPS) profile option.

---

## Manage Object Groups

You can create object groups to specify subsets of elements or payroll relationships to include in a report or process, such as the Calculate Gross Earnings process.

## Payroll Relationships: Explained

A payroll relationship exists between a person and a payroll statutory unit, which is the legal entity responsible for employee payment. Payroll relationships group person records based on payroll regulatory and statutory calculation and reporting requirements. This grouping enables the aggregation of balances across multiple employment terms and assignment records.

Important aspects of payroll relationships include:

- Creation of payroll relationship records
- Multilevel aggregation for payroll calculation
- Payroll employment model

### Creation of Payroll Relationship Records

When an HR administrator processes a new hire, the application automatically creates a payroll relationship record for that person. As an administrator adds employment terms or assignments for that person, the application uses several factors, such as system person type, payroll statutory unit, and country-specific relationship mapping rules, to determine whether to create a new payroll relationship record. Predefined mapping rules for payroll relationships also define the payroll relationship types that indicate whether payroll processing can occur. These predefined rules can vary by localization. For example, in the US, the Employee person type maps to the payroll relationship type that is defined to be processed in payroll runs, whereas the Contingent Worker person type maps to a payroll relationship type that is not be processed in payroll runs.

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#### Note

There is no direct association between payroll relationships and work relationships.

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### Multilevel Aggregation for Payroll Calculation

Payroll relationships represent the association between a person and the payroll statutory unit, which provides the highest level of aggregation for payroll calculation purposes. Payroll processing occurs at the payroll relationship level. This means that to access the results of any payroll process, such as calculation or payment distribution, you start by selecting a payroll relationship record.

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#### Note

Although a person may have multiple payroll relationships, payroll balances for that person cannot span payroll relationships.

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## Payroll Employment Model

The payroll relationship structure provides the capability to have employment terms and assignments that can be linked together for calculations based on the payroll statutory unit. Therefore, information must be stored at the various levels of the payroll relationship model. This information is used by the various payroll processes.

Your enterprise might be defined to use two-tier and three-tier employment models. The three payroll employment levels are:

- Payroll relationship

The payroll relationship is the highest level for which to accumulate balances. Elements assigned at the payroll relationship level are processed in every payroll run. Payroll relationship elements are typically deduction elements, such as tax, pension, social insurance, or court orders.

Payroll relationships are also used outside of Oracle Fusion Global Payroll to facilitate the extraction of data from HCM that is sent to a third-party payroll provider for payroll processing. For example, payroll coordinators use Oracle Fusion Global Payroll Interface to extract benefits data from HCM and send that data through payroll relationships, along with payroll-related data.

- Employment terms (three-tier model only)

Employment terms are commonly used as a middle layer in the payroll employment model to help manage multiple assignments and to satisfy tax and reporting requirements at a lower level than the payroll statutory unit. Elements assigned at the employment terms level are typically salary, pension, or social insurance elements that vary based upon the employment terms.

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### Note

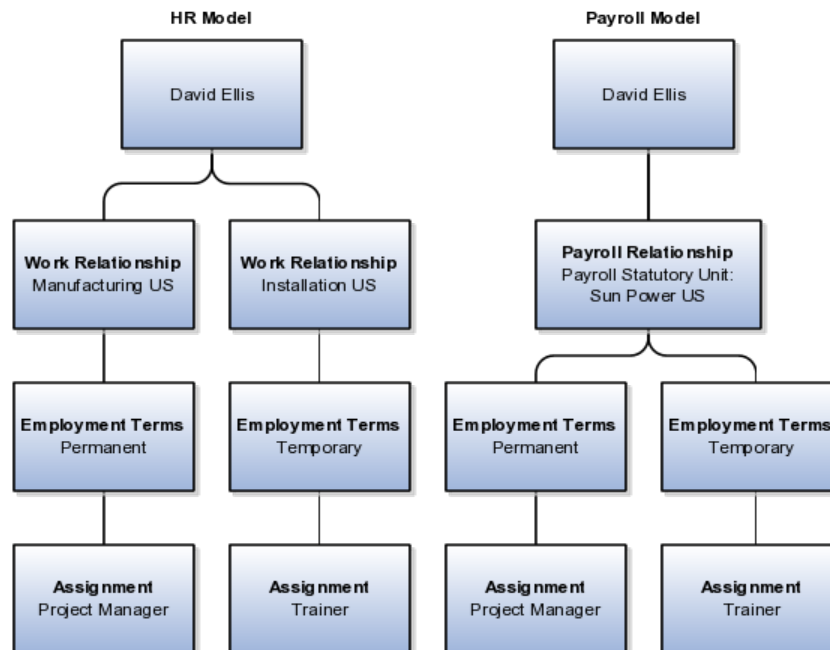
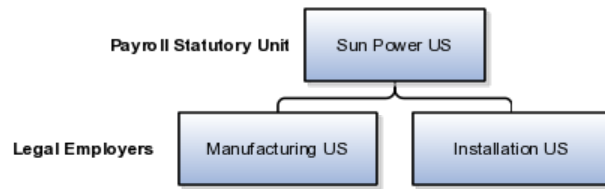
Employees with multiple terms or assignments that are paid on payrolls using different frequencies, such as Monthly and Semimonthly, must have different employment terms or assignments for each payroll. In a two-tier configuration, payrolls can be assigned to the assignment record; in a three-tier configuration, payrolls can be assigned to the terms record.

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- Assignment

Because the assignment is the lowest level of the payroll employment model, elements assigned at this usually level vary from one assignment to another or are specifically for a single assignment. Assignment elements are typically used for monetary terms and conditions, such as overtime rules, rates, or bonuses.

The following figure illustrates the comparison between the HR employment model and the payroll employment model in a US example with two legal employers belonging to one payroll statutory unit. In this example, David Ellis has two different employment terms and assignments, and therefore has two work relationships in the HR employment model and one payroll relationship in the payroll employment model.



## Manage Consolidation Groups

### Consolidation Group Usage: Examples

You create consolidation groups by selecting the Manage Consolidation Groups task from the Payroll Calculation work area. The following scenarios provide examples of how you can use consolidation groups.

#### Post-Run Processing

Consolidation groups facilitate separating payroll run results for supplemental processing. For most payroll post-run processing, you can use the consolidation group as an input parameter. You may want the results of a supplemental payroll run to be kept separately from those of the regular payroll process that was already performed. To use a consolidation group to keep supplemental run results separate from the regular payroll run, you would perform these steps:

1. Create a new consolidation group used to label the supplemental payroll run.
2. Initiate the supplemental payroll run, specifying the new consolidation group as an input parameter.

## Separate Costing and Payment

Using multiple consolidation groups you can control processing. For example, you want to process and pay a particular set of employees separately within a single payroll to keep separate records of payment and costing. To process employees separately, you would perform these steps:

1. Create a new consolidation group to specify when running the Calculate Payroll process.
2. Create a payroll relationship groups to separate the employees.  
You can use rules to identify them dynamically or you can specify the employees by their payroll relationship numbers.
3. Run the Calculate Payroll process for each payroll relationship group separately, once specifying the original consolidation and once for the new consolidation group.

## Supplemental Processing for Special Circumstances

You may want a supplemental payroll run for a special circumstance. For example, you have a main payroll run and three QuickPay runs. Because one of the QuickPay runs is for a termination, it needs to be processed prior to the others. To process the QuickPay for this special circumstance, you would perform these steps:

1. Create a new consolidation group to specify when you process the QuickPay for the termination.
2. Submit a QuickPay process, specifying the new consolidation group.
3. Process the other three payroll runs using their default consolidation groups.

# Manage Organization Payment Methods

## Bank, Branch, and Account Components: How They Work Together

Banks, branches, and accounts fit together on the premise of the Bank Account model. The Bank Account model enables you to define and keep track of all bank accounts in one place and explicitly grant account access to multiple business units, functions, and users. This eliminates the redundant duplicate bank account setup under different business units when these business units share the same bank account.

### Banks

Creating a bank is the first step in the bank account creation. The user can search for existing banks, view and update them, or create new banks. You can create a new bank from an existing party. The option to create from an existing party is implicitly implemented by the matching option. The option is available only after the existing party has been found with the same bank. If you choose the matching option, the page repopulates the information from the matched party.

### Branches

Once you have created your bank, the next step is create a branch or branches associated to the bank. The matching option is also available when creating

branches. To create a new branch without using the matching option, manually enter in the information required. You can define other branch-related attributes in the page. If you do not use the matching option when an existing party is found, a branch with the same party name is created.

### **Accounts**

Once the bank and branch are created, you can proceed to the bank account setup. Select the bank branch you want to associate to your bank account. Assign the owner of the bank account. There are four areas associated to defining the account: general information, control of the account, security access to the account, and business unit assignment. If this is a Payable or Receivable account, the accounts are identified by business unit, and if a Payroll account, by legal entity.

## **Creating Accounts: Points to Consider**

Banks, branches and accounts fit together on the premise of the Bank Account model. The Bank Account model allows you to define and keep track of all bank accounts in one place and explicitly grant account access to multiple business units, functions, and users. Consider the following when you set up bank accounts:

- Assigning a unique general ledger cash account to each account and use it to record all cash transactions for the account. This will facilitate book to bank reconciliation
- Granting bank account security; bank account security consists of bank account use security, bank account access security, and user and role security.

### **Account Use**

Account use refers to accounts created for Oracle Fusion Payables, Oracle Fusion Receivables and Oracle Fusion Payroll. When creating an account to be used in one or more of these applications you must select the appropriate use or uses.

### **Account Access**

Payables and Receivables account access is secured by business unit. In addition to selecting the appropriate application use or uses, one or more business units must be granted access before the bank account can be used by Payables and Receivables. Only business units who use the same ledger as the bank accounts owning legal entity can be assigned access

### **User and Role Security**

You have the option to further secure the bank account so that it can only be used by certain users and roles. The default value for secure bank account by users and roles is No. In Payables and Receivables even if the secure bank account by users and roles is no, you must have the proper Multi-Organization Access Control (also known as MOAC) to access a bank account. If the secure bank account by users and roles is set to Yes, you must be named or you must carry a role that is named expressly on the bank account in order to use it.

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### **Note**

The security role Bank and Branch Management Duty is used to set up banks and branches.

The security role Bank Account Management Duty is used to set up accounts.

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## Organization Payment Methods: Explained

Organization payment methods identify the payment type and the currency to use for payroll payments to workers and for disbursing employee deductions to third parties.

You must define at least one organization payment method for each type of payment and currency that you use to disburse wages and other compensation to your employees. You can also define rules for validating or processing the distribution of payments when you offer more than one option.

A typical configuration is to have one organization payment method for each combination of legislative data group, payment type, and currency.

### Payment Types

Any payment method that you define must belong to one of the payment types that your enterprise supports.

Each payroll must have at least one valid organization payment method for each payment type available to employees on that payroll. There may be more than one payment method with the same payment type.

The most common payment types are:

- Electronic funds transfer (EFT)
- Check
- Cash

Your enterprise may support a different range of types that are appropriate for your localization. For example, some localizations do not allow cash, some do not support checks, and very few support postal money orders.

The names of payment types can vary by localization. For example, in the US, the payment type for EFT is NACHA; in the UK it is BACS, and in Australia it is BECS.

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### Note

When you select the EFT payment type, you can enter EFT information at the organization payment method level, the payment source level, or both. Entries at payment source level take priority over entries at organization payment level.

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### Payment Sources

Payment sources associate bank accounts and other sources of funds with organization payment methods. If you are using Oracle Fusion Global Payroll for payroll processing, each organization payment method that is in use must have at least one valid payment source.

For check and EFT payment methods processed by Global Payroll, the payment source must be associated with an active bank account defined in Oracle Fusion

Cash Management. If an organization payment method is associated with multiple payment sources, then the payment method rules determine which payment source is to be used for each disbursement.

You can use the same bank account as a payment source in more than one organization payment method. For example, one checking account may be used to pay both check and EFT payments. The application will not prevent specifying the same name for different payment sources, but it is best practice to use different naming for each occurrence.

When you have one organization payment method for each combination of legislative data group and payment type, you can use payment rules to determine the appropriate payment source based on tax reporting unit. However, there are several reasons why a company might need multiple organization payment methods and multiple payment sources, such as these examples:

- Company X has only one tax reporting unit, but prefers to pay its executive staff from a separate bank account for security and confidentiality.
- Company Y must comply with state laws and union agreements requiring that checks are drawn on an in-state bank. It uses different organization payment methods for each bank used to pay people based upon their locale.
- Company Z may use different currencies to pay foreign nationals and expatriates working in a different country than their home.

---

#### **Note**

You can use the same organization payment method for both employee payments and third-party payments, but you must define different payment sources for each of them and name them differently.

---

### **Payment Rules**

The first payment source defined is the default payment source. If you add more payment sources, you can add subsidiary information as payment rules. For example, if you have multiple tax reporting units, you can specify which payment source to use for each tax reporting unit.

Having a default payment source ensures that employees are paid if there is a change in tax reporting unit. For example, Company A has multiple independent franchises, each with its own tax reporting unit. If a franchise sells, it will have a new tax reporting unit number, and the payment rule will fail. Instead of issuing errors, payment is made using the default payment source.

You might rather not specify a default payment source when payments cannot be made from the specified payment source in the payment rule. For example, Company B has 30 bank accounts and is very careful not to comingle funds. They leave the default unspecified to instead receive notifications that they can resolve manually.

### **Default Payment Methods**

You can define as many payment methods as required for your enterprise. When you create a payroll, you can select which of these methods are valid

for employees assigned to that payroll. You select one method as the default method for the payroll. The default payment method is used to determine how to disburse a payment when an employee does not have any personal payment methods specified.

---

**Note**

The application does not support EFT payment methods as default payment methods because each payee must have a personal payment method with account information to know where the money will be deposited.

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**Relationship to Other Objects**

You select organization payment methods when defining other objects, such as payroll definitions and other payment methods. Organization payment methods are only available for selection if they are effective as of the date the object is being defined or updated.

For example, if you create a payroll definition effective as of 4/1/2012 and want to associate a particular organization payment method as the default, the organization payment method must have an effective start date on or before 4/1/2012. Similarly, when updating or correcting objects to change the organization payment method, the organization must have an effective start date on or before the effective date of the change.

The functional relationship of organization payment methods with other objects is described in this table.

Object	Functional Relationship
Personal Payment Method	<p>Associates a person to a particular organization method. If the payment type is EFT, the person's bank information is included in the personal payment method.</p> <p>Employees manage personal payment methods from their portrait. Payroll managers, coordinators, and administrators use the Manage Personal Payment Methods task on the Payment Distribution work area.</p>
Third-Party Payment Method	<p>Enables separate payment information for payments to third parties who are not on the payroll.</p> <p>Payments to third parties, such as garnishments or other involuntary deductions, are typically check payments processed separately from the payroll.</p> <p>To manage third-party payment methods, payroll managers and administrators use the Manage Third-Party Payment Methods task on the Payment Distribution work area.</p>
Payroll Definition	<p>Establishes the default payment method for payments to employees who have no personal payment method defined.</p> <p>To manage payroll definitions, payroll managers and administrators use the Manage Payroll Definitions task on the Payroll Calculation work area.</p>



Run-Type Payment Method	<p>Overrides a payroll's default payment method for payments to employees with no personal payment method defined.</p> <p>For example, your regular payroll is by EFT but you issue check bonuses once a year. Using the Separate Payment run type, the payment method will overwrite the one of the payroll. However, if a personal payment method of type EFT has been defined for any employee on the payroll, the application will use the personal payment method instead.</p> <p>To manage run type payment methods, payroll managers and administrators use the Manage Run Types task on the Payroll Calculation work area.</p>
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## Setting Up Payment Sources in Organization Payment Methods: Worked Example

This example demonstrates how to set up payment sources when defining organization payment methods to be used in Oracle Fusion Global Payroll for payroll processing.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
How many organization payment methods are needed?	Two methods to pay employees by check and electronic funds transfer (EFT), and one method to pay external third-party consultants by check.
How many payment sources are needed?	One payment source for each of organization payment method to pay employees, and two payment sources for the organization payment method to pay external third-party consultants.
How many bank accounts will be used?	One for each payment source.
What payment method rules will be used?	Rules for in-state bank accounts used to pay third-party consultants.
Is notification required to alert the source financial institution before processing EFT payments?	Yes. Ten days before EFT payments to executive employees

In this example, the InFusion US company pays its employees by check and EFT payments. Two bank accounts have been set up for funds used to pay the executive staff and the regular employees separately. The company occasionally distributes payments to external third-party consultants, but must comply with state regulations and pays them from two different banks based on their tax reporting unit.

---

### Note

The available payment types for organization payment methods may be limited by the legislation.

---

## Prerequisites

This worked example assumes that the following prerequisites of organization payment methods have already been set up:

1. The primary ledger is set up in Oracle Fusion General Ledger and is available for use.
2. The banks, branches, and account information to use as the payment sources are set up in Oracle Fusion Cash Management and are available for use.
3. The legal entity associated with the legislative data group has been assigned to a general ledger.
4. Tax reporting units have been set up and are available for use.

## Setting Up Organization Payment Methods

Perform the following steps three times, once for each of the three organization payment methods.

1. In the Payment Distribution work area, click **Manage Organization Payment Methods**.
2. In the Search Results section, click **Create**.
3. Select the legislative data group, for example, InFusion US LDG.
4. Select the date when you want this payment to start being available for use, and then click **Continue**.
5. In the Basic Details section, complete the fields as shown in this table, and then click **Save**.

Field	Non-Executive Value	Executive Value	Consultant Value
Name	Employee Payroll Check	Executive Payroll Direct Deposit	In-State Consultant Check
Payment Type	Check	NACHA	Check
Currency	US Dollar	US Dollar	US Dollar

6. For the non-executive and executive employee organization payment methods, in the Payment Sources section under Employee Payment Sources, click **Create**.

On the Create Payment Source page, complete the fields as shown in this table, and then click **Continue**.

Field	Non-Executive Value	Executive Value
Name	Employee Check Source	Executive Direct Deposit Source
Bank Account Name	InFusion US Wells Fargo	InFusion US Bank of America

---

### Note

Keep your payment source names as specific as possible for each scenario. This will help when managing more complicated combinations of organization payment methods and payment rules.

7. For the third-party organization payment method for non-employee payments, in the Payment Sources section under Third-Party Payment Sources, click **Create**.

Perform this step twice, once for each payment source.

On the Create Payment Source page, complete the fields as shown in this table, and then click **Continue**.

Field	First Source Value	Second Source Value
Name	Texas Check Source	California Check Source
Bank Account Name	Comerica Bank	Bank of the West

---

#### Note

If a single organization payment method has payment sources defined for both employees and third parties, the names of the payment sources must not be the same.

8. Click **Submit**.

## Creating Payment Rules

In this example, the organization payment method you set up for the external third-party payments with two different payment sources requires payment rules to determine how payments are distributed.

Perform these steps for the In-State Consultant Check organization payment method created in the previous task.

1. In the Search section of the Manage Organization Payment Methods page, select your legislative data group, and then click **Search**.
2. In the Search Results section, click the **Edit** icon in the Update Status column for the row showing the In-State Consultant organization payment method.
3. Click **Yes** if a message displays confirming you want to correct the record.
4. In the Payment Method Rules section under Third-Party Payment Sources, click **Create** and select the values shown in this table to create two payment rules that map a payment source to a tax reporting unit.

Field	Texas Check Source	California Check Source
Default	No	No
Tax Reporting Unit	Texas TRU	California TRU
Payment Source	Texas Check Source	California Check Source

5. Click **Submit**.

## Adding EFT File Information

In this example, the bank information for the EFT payments to executive employees must be added.

When you select the EFT payment type, you can enter EFT information at the organization payment method level, the payment source level, or both. Entries at payment source level take priority over entries at organization payment level. In this example, the EFT information is set at the organization payment method level because the US company requires notification of any electronic transfers of funds 10 days prior to the planned transfer date.

1. In the Search section of the Manage Organization Payment Methods page, select your legislative data group, and then click **Search**.
2. In the Search Results section, click the **Edit** icon in the Update Status column for the row showing the Executive Direct Deposit organization payment method.
3. Click **Yes** if a message displays confirming you want to correct the record.
4. In the Electronic Funds Transfer File Information section, enter values as shown in this table.

Field	Value
Prenotification Required	Yes
Prenote Days	10

5. In the Payment Rules area, ensure that the Executive Direct Deposit Source is selected as the default payment source.
6. Click **Submit**.

## Third-Party Payment Methods: Explained

Use the Manage Third-Party Payment Methods task to create payment methods for all external payees who are not on the payroll. A third party can be either a person or an organization. Payments to third parties are normally involuntary deductions, such as court-ordered garnishments.

For all third-party payment methods, the organization method that determines the payment source to use must already be defined. Use the Manage Organization Payment Methods task in the Payment Distribution work area to define the payment source for third-party payments.

### Payments to Persons

When you create a third-party payment method for a person, you select the payroll relationship for the employee whose pay is subject to the deduction. This makes the third-party person payment method available for selection as a payee on the employee's involuntary deduction card.

For example, you might set up an electronic funds transfer (EFT) payment to Mary Smith for a child-support deduction for employee John Smith. When you create the third-party payment method, you select the payroll relationship for John Smith. When you add the child support order to John Smith's involuntary deduction card, you can select Mary Smith in the Order Amount Payee field.

## Payments to Organizations

When you create a third-party payment method for an organization, you select External Payee in the Party Usage Code field to make the organization available for selection as a payee on the employee's deduction card.

For example, you might set up an EFT payment method for a County Sheriff that receives a processing fee on garnishment payments. When you create the payment method, you designate the County Sheriff as an External Payee. When you add the garnishment order to the employee's involuntary deduction card, you can select the County Sheriff in the Processing Fee Payee field.

## Manage Payroll Definitions

### Payroll Definitions: Explained

Payroll definitions contain calendar and offset information, which determines when payments are calculated and costed. Using payroll definitions, you can specify payment frequency, processing schedule, and other parameters for a particular payroll. Payroll period types, such as weekly or monthly, determine the interval at which you pay employees.

Each payroll definition can use only one payroll period type, and you must set up at least one payroll definition for each payroll period type that you use to pay employees. For example, to pay employees semimonthly, create a payroll definition using the semimonthly payroll period type, ensuring that tax calculations and other calculations will produce correct results for those employees.

When you create a payroll definition, the complete payroll schedule is automatically generated, based on the payroll period type, any offsets or calendar adjustments, and the number of years that you specify. Once you have saved a payroll definition, you can assign employees to it on the Manage Payroll Relationships page.

A common scenario for modifying an existing payroll definition is to increase the number of years and generate more payroll time periods to extend the payroll calendar. A common scenario for creating a payroll definition is to replace one that is expired or end-dated.

Each payroll must belong to a consolidation group, which is required by the application for processing purposes. Before you can create a payroll definition, the legislative data group and the consolidation group to use for it must already be defined.

### Managing Payroll Definitions: Points to Consider

When you create or modify payroll definitions, the application automatically generates a calendar of payroll periods based on your selections. The choices you make for the following values determine exactly how the schedule of payroll periods is generated:

- Effective start date
- First period end date
- Number of years
- Offsets

- Changes to specific dates

### Effective Start Date

The effective start date is the first date that the payroll definition can be used for employee data. The start date must be on or before the earliest date of any historical data you want to load. For example if you want a payroll to be in use starting on 1/1/2013, and you have 5 years of historical payroll data to load, then the start date of the payroll definition must be on or before 1/1/2008.

The effective start date does not affect the generated calendar of payroll periods. The start date for the first payroll period is based on the first period end date.

### First Period End Date

The first period end date is the end date of the first payroll period that the application generates for a payroll definition. It is typically based on the date of implementation, tax year, benefits enrollments, or a particular payment cycle. For example, if your weekly payroll work week is Saturday through Friday, and your first payment date is planned to be on 1/6/12, you could use 12/30/11 as your first period end date.

### Number of Years

The number of years you enter represents how many years of time periods to generate starting from the beginning of the first payroll period. For example, a payroll definition with an effective start date of 1/1/1985, a payroll period type of semimonthly, a first period end date of 6/15/2012, and the number of years as 5 would generate a calendar of payroll time periods from 6/1/2012 through 5/31/2017. Once you save a payroll definition, you can later only increase but not reduce its number of years because a calendar of time periods for the payroll has already been generated.

### Offsets

Depending on the payroll period type, you can elect for your payroll cycle events to occur on specific dates or be based on offsets from period start or end dates.

This table describes the predefined payroll cycle events that you can offset.

Date	Meaning
Cutoff Date	Final date that payroll information can be entered for the payroll period.
Payslip Availability Date	Date on which the payslip is available for viewing.
Payroll Run Date	Date scheduled for the regular run of this payroll.
Date Earned	Date on which element entries are added to the payroll run.
Date Paid	Date the employee is marked as paid. For check payments, this is the date that the check can be cashed or deposited. For electronic funds transfer (EFT) payments, it is the transfer date.

### Dynamic Offsets

When creating a payroll definition, you can use dynamic offsets for payroll cycle events. All of the predefined payroll time periods you can use support

dynamically generated dates for offsets. Using dynamic offsets, you have the option to offset each payroll cycle event by a specified number of calendar or work days before or after the start date or the end date of the payroll period. For example, you might want to set the payroll run date three work days before the payroll end date, which accommodates differences in the number of days in the payroll period and also accounts for weekends and holidays.

### Fixed-Date Offsets

The predefined Monthly (Calendar) payroll time period supports using both dynamic offsets and fixed-date offsets. Using fixed dates, you can adjust the exact date of each of the payroll cycle events for the first payroll period and any adjustments that you make will be reflected in the payroll calendar for subsequent payroll time periods. For example, you might set the cutoff date as the 25th of the month and the payroll run date as the 26th of the month, then all payroll periods in the calendar will have those offsets.

### Specific Date Adjustments

Once you have generated the payroll time periods, you can further adjust any specific calendar dates, as desired. For example, if you know of a particular bank holiday that falls on a payroll run date or a payment date, you might want to adjust the dates manually on the payroll calendar's time period. You can make these adjustments when creating a payroll definition or any time after then, as long as the time period is in the future.

## Creating Payroll Definitions: Worked Example

This example demonstrates how to create two payroll definitions for different payment frequencies that are associated with one consolidation group and one legislative data group.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
Which consolidation group should be used?	User-defined consolidation group: InFusion US Emp Group
What is the legislative data group for the consolidation group?	User-defined legislative group: InFusion US LDG
What are the payroll periods to use?	Predefined payroll period types: Semimonthly Monthly (Calendar)
What are the names of the new payroll definitions?	InFusion US Emp Semimonthly InFusion US Emp Monthly
What is the name of the organization payment method to use for all employees?	User-defined payment methods: InFusion US Emp Check Infusion US Emp EFT

In this example, the InFusion US company is creating payrolls for its employees. There are two sets of employees, permanent employees who are paid a set amount on a semimonthly basis, and temporary employees that are paid using time card data on a monthly basis.

The business requires that a single monthly costing process be run against results from different payroll runs by using the consolidation group name as an input parameter in the costing run. This example creates two payroll definitions with different payment periods, but the same consolidation group. Both definitions are effective starting on 1/1/11 and will generate payroll time periods covering 5 years.

## Prerequisites

1. Ensure that the legislative data group for your payrolls exists, such as InFusion US LDG.
2. Ensure that organization payment methods exist for your payrolls, such as InFusion US Emp Check and InFusion US Emp EFT.
3. Create a consolidation group named InFusion US Emp Group assigned to the InFusion US LDG legislative data group.

## Create the Payroll Definitions

Create two payroll definitions:

- One for permanent employees that are paid a flat amount by electronic funds transfer (EFT) on a semimonthly basis. This payroll definition includes dynamically generated offset dates.
- One for temporary employees that are paid by check using time card data on a monthly calendar basis.

Perform the following steps twice, first using the semimonthly values and then using the monthly values.

1. In the Payroll Calculation work area, click **Manage Payroll Definitions**.
2. In the Search Results section of the Manage Payroll Definitions page, click the **Create** icon.
3. Select the InFusion US LDG legislative data group from the list.
4. Enter 1/1/11 as the effective start date you want the payroll to be available for use, and then click **Continue**.

In this example, all employees that will use this payroll definition are hired after 1/1/11, so there is no issue with loading historical employee data.

5. In the Basic Details section, complete the fields as shown in this table, and then click **Next**.

Field	Semimonthly Value	Monthly Value
Name	InFusion US Emp Semimonthly	InFusion US Emp Monthly
Consolidation Group	InFusion US Emp Group	InFusion US Emp Group
Period Type	Semimonthly	Monthly (Calendar)



First Period End Date	6/15/12	6/30/12
Default Payment Method	InFusion US Emp EFT	InFusion US Emp Check

6. On the Payroll Offsets page, in the Number of Years field, enter 5.
7. For the semimonthly payroll, use dynamic variables to define offsets as shown in this table, and then click **Next**.

Field	Falls Value	Day Type Value	Offset Value	Base Date Value
Cutoff Date	5	Work Days	Before	Period End Date
Payroll Run Date	3	Work Days	Before	Period End Date

8. For the monthly payroll, use fixed dates to define offsets as shown in this table, and then click **Next**.

Field	Value
Fixed Date	Yes
Cutoff Date	6/25/12
Date Earned	6/30/12
Payroll Run Date	6/27/12
Date Paid	6/30/12

9. On the Payroll Calendar page, adjust payroll days to account for a bank holiday, as shown in this table.

Column	Semimonthly Value	Monthly Value
Payroll Run Date	Old Value: 11/28/13	Old Value: 5/27/13
	New Value: 11/27/13	New Value: 5/28/13

10. Click **Next**.
11. Review the details of the payroll definition, and then click **Submit**.

## FAQs for Manage Payroll Definitions

### When would I close a payroll period?

Closing a payroll period can interfere with changes to recurring entries. Payroll periods are not like General Ledger periods. You do not need to close payroll periods.

### Why can't I select a payment method when creating a payroll definition?

There are two reasons why you might not be able to view and select the payment method you are looking for. Either the start date of the payroll definition is

before the start date of the organization payment method or the organization payment method has no associated payment source.

## **Manage Element Classifications**

### **Element Classification Components: How They Work Together**

Elements are grouped into primary classifications, such as Earnings and Voluntary Deductions. In a human resources department, you can use the primary classifications to identify groups of elements for information and analysis purposes. In a payroll department, the classifications control processing, including the sequence in which elements are processed and the balances they feed.

#### **Primary Classifications**

Oracle Fusion provides you with these primary classifications and some balances, mainly to reflect tax legislation. They are designed to meet the legislative requirements of your country, so you cannot change them. You can create additional balances to be fed by any of the primary classifications.

#### **Secondary Classifications**

Secondary classifications are subsets of the primary classifications. Use them to manage wage basis rules for deductions and taxes. Many legislations have predefined secondary classifications, and a few allow you to create your own. As with primary classifications, you cannot remove or change any predefined secondary classifications.

#### **Subclassifications**

Subclassifications provide a way to feed balances. Elements can have only one primary and secondary classification, but multiple subclassifications. You can create subclassifications or use predefined ones. Once a subclassification is associated with a classification it cannot be associated with another classification. A subclassification name can be reused under different primary classifications, but you will have to create separate balance feeds for each subclassification with the same name.

#### **Costing**

If the classification is set to allow costing, you can select any costing option for element eligibility records. You can create distribution groups with elements that have a primary classification that allows distribution. For example, you can create a distribution with all of the earnings elements and prorate tax expenses proportionately over the cost centers in which the wages were earned. The primary classification also determines whether a positive amount is costed as a debit or a credit.

#### **Frequency Rules**

Use frequency rules on an element that is not scheduled to process each period. For example, the rules for a weekly payroll could indicate that the element entries for that element would only be processed on the first and third payroll periods of each month. The default frequency rule is always each period.

## Element Processing Sequence: How it is Determined

Payroll runs process elements in a predefined sequence, which you can determine.

## How Processing Order Is Determined

An element's primary classification defines a default processing priority for the element in payroll runs. Lower priority numbers process first

## Overriding Default Processing Priority

Most classifications also have a priority range. When you define an element in these classifications, you can overwrite its default processing priority with another number from the range. This is useful if you need to establish the order in which the element processes with respect to other elements in the classification

Sometimes you must prioritize the processing of certain element entries for an individual person. For example, you may need to determine the precise order in which deductions taken for wage attachments process for a person. You can enter a subpriority number for element entries.

## Manage Fast Formulas

### Using Formulas: Explained

Fast formulas are generic expressions of calculations or comparisons that you want to repeat with different input variables.

You can use fast formulas to:

- Calculate payrolls
- Define the rules for paid time off accrual plans
- Define custom calculations for benefits administration
- Validate element inputs or user-defined tables
- Edit the rules for object group population for elements or people
- Calculate absence duration
- Define custom configuration for compensation

#### Calculate Payrolls

Write payroll calculations and skip rules for elements that you define to represent earnings and deductions. Associate more than one formula with each element to perform different processing for employee assignments with different statuses. You can define elements and formulas for earnings and deductions with highly complex calculations requiring a number of different calls to the database.

## **Define the Rules for Paid Time Off Accrual Plans**

Edit the delivered accrual type formulas or write your own. Each accrual plan needs two formulas: one to calculate the gross accrual and the other to return information to the PTO carry-over process.

## **Define Custom Calculations for Benefits Administration**

Configure your plan design to the requirements of your enterprise. Formulas provide a flexible alternative to the delivered business rules for such purposes as:

- Date calculations, such as enrollment start and end dates, rate or coverage start and end dates, waiting periods and enrollment periods, or action item due dates
- Calculations of rate and coverage amount, minimum and maximum, or upper and lower limits
- Certification requirements
- Partial month and proration calculations
- Eligibility and participation evaluation

For example, you can write a formula to calculate benefits eligibility for those cases where the provided eligibility criteria does not accommodate your particular requirements.

For more information, see Benefits Fast Formula Reference Guide (1456985.1) on My Oracle Support at <https://support.oracle.com>.

## **Validate Element Inputs or User-Defined Tables**

Validate user entries into element input values using lookups or maximum and minimum values. However, for more complex validations write a formula to check the entry. Also, use a formula to validate entries in user tables.

## **Edit the Rules for Populating Work Relationship or Payroll Relationship Groups**

Define criteria to dynamically populate a payroll relationship group or work relationship group. When you create a formula of type Payroll Relationship Group or Work Relationship Group, the Create Fast Formula page provides an expression editor to help you build the selection criteria.

## **Calculate Absence Duration**

Calculate the duration of an absence from the start and end dates.

## **Define Custom Configuration for Compensation**

Extend the existing flexibility of compensation plan configuration by writing formulas to customize:

- Start and end dates for compensation allocations under individual compensation plans
- Person selection, hierarchy determination, column default values, and currency selection for workforce compensation plans
- The source of items displayed in total compensation statements

## Writing a Fast Formula Using Formula Text: Worked Example

This example demonstrates, using the text editor, how to create a fast formula that returns the range of scheduled hours for managers and a different range for other workers.

The following table summarizes key decisions for this scenario:

Decisions to Consider	In This Example
Is the formula for a specific legislative data group?	No, this is a global formula that can be used by any legislative data group.
What is the formula type for this formula?	Range of Scheduled Hours
Are there any contexts used in this formula?	No
Are there any database item defaults?	Yes, ASG_JOB
Are there any input value defaults?	No
What are the return values?	MIN_HOURS, MAX_HOURS, FREQUENCY

### Creating a Fast Formula Using the Text Editor to Determine a Manager's Scheduled Hours

1. On the Payroll Calculation Tasks page, click Manage Fast Formulas to open the Manage Fast Formulas page.
2. On the Manage Fast Formula page, click the **Create** icon to create a new formula.
3. On the Create Fast Formula page, complete the fields as shown in this table.

Field	Value
Formula Name	Manager Range of Scheduled Hours
Formula Type	Range of Scheduled Hours
Description	Manager's Range of Hours
Effective Start Date	1-Jan-2010

4. Click **Continue**.
5. Enter the following formula details in the Formula Text section:

```
/* DATABASE ITEM DEFAULTS BEGIN */
DEFAULT FOR asg_job IS ' '
/* DATABASE ITEM DEFAULTS END */
JOB_1 = ASG_JOB
IF JOB_1 = 'Manager' then
(MIN_HOURS = 25
MAX_HOURS = 40
FREQUENCY = 'H')
else
(MIN_HOURS = 20
```

```

MAX_HOURS = 35
FREQUENCY = 'H')
return MIN_HOURS, MAX_HOURS, FREQUENCY

```

6. Click **Compile**.
7. Click **Save**.

## Writing a Fast Formula using Expression Editor: Worked Example

This example demonstrates how to create a fast formula that groups executive workers for reporting and processing. All executive workers are in department EXECT\_10000. Once the formula is created it will be added as object group parameters so that only those workers in department EXECT\_10000 are used in processing.

The following table summarizes key decisions for this scenario:

Decisions to Consider	In This Example
Is the formula for a specific legislative data group?	Yes, InVision
What is the formula type for this formula?	Payroll Relationship Group

### Creating a Fast Formula Using the Expression Editor

1. On the Payroll Calculation Tasks page, click Manage Fast Formulas to open the Manage Fast Formulas page.
2. On the Manage Fast Formula page, click the **Create** icon to create a new formula.
3. On the Create Fast Formula page, complete the fields as shown in this table.

Field	Value
Formula Name	Executive Payroll Relationship Group
Type	Payroll Relationship Group
Description	Executive Workers
Legislative Data Group	Vision LDG
Effective As-of Date	1-Jan-2010

4. Click **Continue**.
5. In the Formula Details section, click **Add After** to add a row to enter the fields in this table.

Conjunction	Database Item Name	Data Type	Operand	Literal Value
IF	DEPARTMENT	Character	=	'EXECT_10000'
Then	SELECT_EMP	Character	=	'YES'
ELSE	SELECT_EMP	Character	=	'NO'

6. Click **Compile**.
7. Click **Save**.

## Formula Compilation Errors: Explained

Compilation errors display in the Manage Fast Formulas page when you compile the formula. The formula compiler returns line numbers starting at 1 from the beginning of a formula, and character positions starting at 1 from the beginning of a line in its error messages. The compiler aborts compilation when an error is encountered.

### Common Compilation Errors

This table lists the type and description of several common formula compilation errors.

Formula Error	Description
Syntax Error	The formula text violates the grammatical rules for the formula language. An example is using <code>IF1</code> instead of <code>IF</code> for an <code>IF</code> statement.
Incorrect Statement Order	<code>ALIAS</code> , <code>DEFAULT</code> , or <code>INPUT</code> statements come after other statements.
Misuse of <code>ASSIGNMENT</code> Statement	Occurs when any of these conditions occurs: <ul style="list-style-type: none"> <li>An <code>ASSIGNMENT</code> assigns a value to a database item.</li> <li>A context is assigned a value externally to a <code>CHANGE-CONTEXTS</code> statement.</li> <li>A non-context variable is assigned a value within a <code>CHANGE-CONTEXTS</code> statement.</li> </ul>
Misuse of <code>ALIAS</code> Statement	An <code>ALIAS</code> statement may only be used for a database item.
Missing <code>DEFAULT</code> Statement	A database item with defaulting specified must have a <code>DEFAULT</code> statement.
Misuse of <code>DEFAULT</code> Statement	A <code>DEFAULT</code> statement is specified for a variable other than an input or database item.
Uninitialized Variable	The compiler detects that a variable is uninitialized when used. The compiler cannot do this in all cases. This error often occurs when you want to use a database item, but a database item is not available in the formula.
Missing Function Call	A function call is not recognized. The combination of return type, function name, and parameter types does not match any available function.
Incorrect Operator Usage	An instance of a formula operator use does not match the permitted uses of that operator.  For example, the <code>+</code> operator has two permitted uses. The operands are both of data type <code>NUMBER</code> , or both of data type <code>TEXT</code> .

Inconsistent Data Type Usage	<p>A formula variable is being used as if it is of more than one data type. Or a database item or context is being used with the wrong data type.</p> <p>For example, Variable A is assigned a <code>NUMBER</code> value at the start of the formula, but a <code>TEXT</code> value later in the formula.</p>
<code>EXIT</code> Statement Not Within <code>WHILE</code> Loop	<p>A condition that eventually becomes false, or an <code>EXIT</code> call for exiting the loop does not exist.</p>
Misuse of Context	<p>A variable is used as a context, or a context is used as a variable.</p> <p>For example, <code>AREA1</code> is assigned a value as an ordinary variable, but later in the formula <code>AREA1</code> used as a context in a <code>GET_CONTEXT</code> call.</p>

## Formula Execution Errors: Explained

Fast formula execution errors occur when a problem arises while a formula is running. The usual cause is a data problem, either in the formula or in the application database. These errors contain the formula line number where the error occurs.

### Formula Execution Errors

This table lists the type and description of each formula execution error.

Formula Error	Description
Uninitialized Variable	<p>Where the formula compiler cannot fully determine if a variable or context is initialized when it is used, it generates code to test if the variable is initialized.</p> <p>When the formula executes and the variable or context is not initialized an error is raised.</p>
Divide by Zero	Raised when a numeric value is divided by zero.
No Data Found	<p>Raised when a non-array type database item unexpectedly fails to return any data. If the database item can return no data then it should allow defaulting.</p> <p>This error is also raised from within a formula function. The cause is an error in the formula function code.</p>
Too Many Rows	<p>Raised when a non-array type database item unexpectedly returns more than a single row of data. The cause is an incorrect assumption made about the data being accessed.</p> <p>This error can also be raised from within a formula function. The cause is an error in the formula function code.</p>
<code>NULL</code> Data Found	Raised when a database item unexpectedly returns a <code>NULL</code> data value. If the database item can return a <code>NULL</code> value then defaulting is allowed.



Value Exceeded Allowable Range	Raised for a variety of reasons, such as exceeding the maximum allowable length of a string.
Invalid Number	Raised when an attempt is made to convert a non numeric string to a number.
User Defined Function Error	Raised from within a formula function. The error message text is output as part of the formula error message.
External Function Call Error	A formula function returned an error, but did not provide any additional information to the formula code. The function might have output error information to the logging destination for the executing code.
Function Returned <code>NULL</code> Value	A formula function returned a <code>NULL</code> value.
Too Many Iterations	A single <code>WHILE</code> loop, or a combination of <code>WHILE</code> loops, has exceeded the maximum number of permitted iterations. The error is raised to terminate loops that could never end. This indicates a programming error within the formula.
Array Data Value Not Set	The formula attempted to access an array index that has no data value. This is an error in the formula code.
Invalid Type Parameter for <code>WSA_EXISTS</code>	An invalid data type was specified in the <code>WSA_EXISTS</code> call.
Incorrect Data Type For Stored Item	When retrieving an item using <code>WSA_GET</code> , the items actual data type does not match that of the stored item. This is an error within the calling formula.
Called Formula Not Found	The called formula could not be resolved when attempting to call a formula from a formula. This could be due to an error in the calling formula, or because of installation issues.
Recursive Formula Call	An attempt was made to call a formula from itself. The call could be directly or indirectly via another called formula. Recursive formula calling is not permitted.
Input Has Different Types In Called and Calling Formulas	When calling a formula from a formula, the actual formula input data type within the called formula does not match the data type specified from the calling formula.
Output Has Different Types In Called and Calling Formulas	When calling a formula from a formula, the actual formula output data type within the called formula does not match the data type specified from the calling formula.
Too Many Formula Calls	There are too many formula from formula calls. This is due to a problem with the formulas.

## FAQs for Manage Fast Formulas

### When do I run the Compile Formula process?

If you need to compile many fast formulas at the same time, you can run the Compile Formula process on the Submit a Process or Report page. Also, if you

make any changes to a function after you have compiled a formula that uses it, you need to recompile the formula for the changes to take effect.

### **What's the difference between a formula compilation error and an execution error?**

Compilation errors occur in the Manage Fast Formulas page when you compile the formula. An error message explains the nature of the error. Common compilation errors are syntax errors resulting from typing mistakes.

Execution errors occur when a problem arises while a formula is running. The usual cause is a data problem, either in the formula or in the application database.

## **Manage Balance Definitions**

### **Balance Definitions: Explained**

Payroll balances show the accumulation of values over a period of time. The values can be currency, hours, or any other numeric value. You manage balance definitions from the Payroll Calculation work area. Most of the balances you require are predefined and additional balances are created automatically when you create elements. You can edit the definition of these generated balances, or create additional balances for calculations or reporting.

When you create a balance definition, you select the balance category and a unit of measure. Each balance definition is grouped in a predefined balance category for quicker processing. Balance categories are legislation-specific and cannot be modified. The predefined units of measure available for selection are Day, Hour (with different combinations of minutes and seconds), Integer, Money, and Number.

Important aspects of balance definitions are:

- Balance Dimensions
- Balance Feeds
- Generated Balances and Database Items
- Base Balances
- Remuneration

#### **Balance Dimensions**

Each balance can have multiple dimensions, which define the specific value to be retrieved. Balance dimensions are predefined and typically combine these components:

- Time span, such as run, period to date, or fiscal year to date

- Employment relationship level, either assignment, terms, or payroll relationship
- Context, required for some balances only, such as tax reporting unit, element, or payroll

For example, if you select the dimension Core Assignment Tax Unit Year to Date for the balance Gross Earnings, you create the defined balance `GROSS_EARNINGS_ASG_TU_YTD`, which accumulates gross earnings for an assignment in a specific tax reporting unit from the beginning of the calendar year to date.

## Balance Feeds

You can define balance feeds by element input values or by balance classification run results.

- Balance Feeds by Element

Balance feeds by element indicate one or more element input values to add or subtract from a balance. For each balance feed, all elements must be of the same data type. For example, you would not mix money and hours in the same balance feed.

If a balance is fed by a single element, it is called a primary balance.

- Balance Feeds by Classification

Balance feeds defined by primary or secondary element classification are always payroll run result values.

If you add a primary classification as a balance feed, you cannot add the children of this classification from the secondary or subclassifications. For example, if you use the Supplemental Earnings primary classification as a balance feed, you cannot also use any secondary or subclassification that are children of Supplemental Earnings. Also, you cannot use both secondary classifications and subclassifications in the same balance feed.

For any balance that you need to initialize, regardless of whether it is fed by elements or classifications during normal processing, you can select elements to feed it for balance initialization purposes only. Select one element for each level of the employment hierarchy associated with a dimension that you want to initialize.

## Generated Balances and Database Items

When you create elements, balances and balance feeds are created automatically as determined by the element template. A database item is generated automatically for each balance dimension. You can use the database items in your formulas to check the value of a balance.

## Base Balances

You can specify a base balance when there is a relationship between balances that can be relied on when processing and reporting. For example, Loan Repayment could be the base balance for Loan Repayment Arrears.

## Remuneration

One balance in a legislation is predefined as the remuneration balance, which is used to generate payments for employees. For example, the remuneration balance might be Net Pay, which is a calculated balance that is the sum of standard earnings and supplemental earnings minus all the deductions calculated for the run.

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### Important

Setting the Use for Remuneration option to Yes means the balance will be defined as the remuneration balance. Only one balance in a legislation can be the remuneration balance.

---

## Load Initial Balances

### Initial Balance Loading: Explained

Setting initial balances values is an essential task when you migrate payroll data from another system. First you load balance values into batch views then submit the Load Initial Balances process from the Payroll Calculation work area. The process validates then processes the batch.

### Balance Initialization Elements

For each balance to be initialized, you must create elements in the Balance Initialization classification and add them to the balance as balance feeds. You can create up to three elements: one to initialize assignment level balances, one for employment terms level, and one for payroll relationship level.

Each balance initialization element must:

- Be nonrecurring and for balance adjustments only.
- Be processable in the payroll run.
- Have an input value to feed the balance and an input value for each context required by the balance. If you need to set initial values for a large number of balances you can define multiple input values for a single element with each input value feeding a different balance.

### Batch Views

Populate the batch views with the balance values for the initialization date. You can use the Batch Loader spreadsheet, or populate the batch directly using the API in the PAY\_BALANCE\_BATCH\_LINES\_PKG API package. You can download the Batch Loader spreadsheet in the Payroll Administration work area.

The views are:

- PAY\_BALANCE\_BATCH\_HEADER

- PAY\_BALANCE\_BATCH\_LINES

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### Important

The PAY\_BALANCE\_BATCH\_LINES view has a complex definition and cannot be directly inserted into. You must use the Batch Loader spreadsheet or API.

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When you create the batch header and lines, consider the following points:

- Divide your employees into separate batches to limit the size of each batch.
- Within a batch, ensure that you include batch lines for every balance to be initialized for a person. You cannot split lines for a person across multiple batches.
- The date you specify on the batch header applies to all lines unless you enter an override date at the line level. The date at line level must be on or before the date on the header.
- You cannot initialize balances once you have run any payroll processes.

## Initial Balances: How They Are Loaded

The Load Initial Balances process validates then processes the initial balance values you load into batch views. It creates balance adjustments to set the required values.

### Settings That Affect Initial Balances

The data you load into the batch views determines which defined balances are initialized and the values used. Typically, you group employees into batches to manage the initialization of their balances.

### How the Balances Are Initialized

The Load Initial Balances process validates that the entities referenced in the batch data exist, including balances, balance dimensions, tax reporting units, payrolls, payroll relationships, employment terms, and assignments. It checks that values are available for the contexts used by each balance dimension. It does not check, for example, that an employee is assigned to a specified organization. It sets the status of valid batch lines to V.

The process creates balance adjustments. For all the batch lines it successfully processes, the process sets the status to T and updates the PAYROLL\_REL\_ACTION\_ID to point to the balance adjustment.

### Examples

The following table shows a simple three-line batch loaded on 18 June.

Defined Balance	Value
Total_Earnings_PTD	100
Total_Earnings_QTD	250
Total_Earnings_YTD	500

For this batch, the process creates an adjustment on the first day of the time period relevant to each dimension, as shown in the following table:

Adjustment Date	Adjustment Value	Balances Adjusted
1 June	100	Total_Earnings_PTD Total_Earnings_QTD Total_Earnings_YTD
1 April	150	Total_Earnings_QTD Total_Earnings_YTD
1 Jan	250	Total_Earnings_YTD

## Balance Batch Header and Lines Views

The PAY\_BALANCE\_BATCH\_HEADER and PAY\_BALANCE\_BATCH\_LINES views hold the data used by the Load Initial Balances process to initialize balance values.

You must load data into these views using the Batch Loader spreadsheet or API in the PAY\_BALANCE\_BATCH\_LINES\_PKG PL/SQL package. Create each batch line with a BATCH\_LINE\_STATUS of U (unprocessed) and leave the PAYROLL\_REL\_ACTION\_ID column blank. The batch upload process updates these two columns.

### Required Columns

#### Note

You can view the full column listing by querying the view in the Oracle Enterprise Repository at <https://fusionappsoer.oracle.com/oer/>.

In PAY\_BALANCE\_BATCH\_LINES, the columns shown in the following table are required. Where there is both an ID column and a name column for the same entity, for example, PAYROLL\_ASSIGNMENT\_ID and ASSIGNMENT\_NUMBER, you can populate either column, but you must populate at least one. If the ID column is left blank, the batch upload process uses the name column value to derive the ID value.

Column	Comments
PAYROLL_RELATIONSHIP_ID + PAYROLL_RELATIONSHIP_NUMBER	Identify the payroll relationship for this balance value.
BALANCE_TYPE_ID + BALANCE_NAME	Identify the balance for this balance value.
BALANCE_DIMENSION_ID + DIMENSION_NAME	Identify the balance dimension for this balance value. DIMENSION_NAME should be populated with the localization's dimension usage dimension name rather than the core DIMENSION_NAME held on PAY_BALANCE_DIMENSIONS.
VALUE	Identify the numerical value of the balance on the upload date.

UPLOAD_DATE	Identify the date of the balance value. This date must be on or before the upload date for the batch header.
PAYROLL_ID + PAYROLL_NAME	Identify the context required for evaluating a balance value, even though it may not be a context for the dimension.

### Core Context

The core contexts shown in the following table must be populated if the balance dimension expects a value for this context.

Column	Comment
PAYROLL_TERM_ID + TERM_NUMBER	Identify the payroll term for this balance value, if required. Where there is both an ID column and a number column for the same entity, you can populate either column, but you must populate at least one.
PAYROLL_ASSIGNMENT_ID + ASSIGNMENT_NUMBER	Identify the payroll assignment for this balance value, if required.
LEGAL_EMPLOYER_ID + LEGAL_EMPLOYER_NAME	
TAX_UNIT_ID + TAX_UNIT_NAME	
AREA1 + AREA2 + AREA3 + AREA4	Identify state and country code information. In Oracle E-Business Suite these items were STATE_CODE, COUNTY_CODE and so on.
THIRD_PARTY_PAYEE_ID + THIRD_PARTY_PAYEE_NAME	
TIME_DEFINITION_ID + TIME_DEFINITION_NAME	
RUN_TYPE_NAME + RUN_TYPE_ID	
ELEMENT_ENTRY_ID	
BALANCE_DATE	
CALC_BREAKDOWN_ID	Identify the ID associated with payroll term.

### Legislative or User-defined Context Columns

There are six legislative or user-defined contexts, which must be populated if the balance dimension expects a value for these contexts. For each context, there is a context ID, name, and value. For example:

- CONTEXT1\_ID + CONTEXT1\_NAME
- CONTEXT1\_VALUE if CONTEXT1 is used by the balance dimensions

---

#### Note

The values of the core contexts are the IDs themselves, while the values of the legislative contexts are separate from the ID of the context.

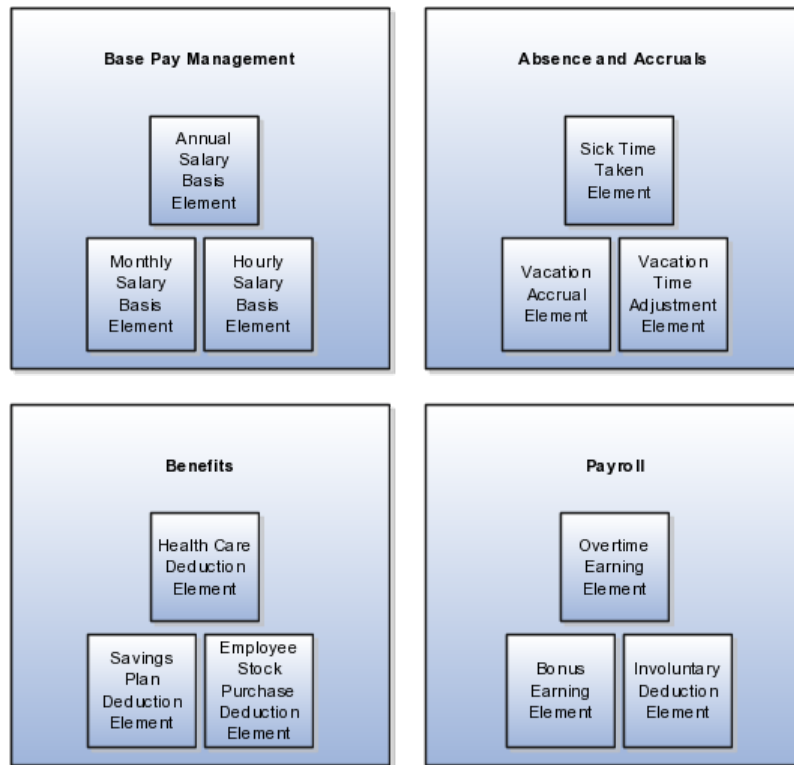
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Populate CONTEXT[1-6]\_NAME with the name of the context usage for that legislative or user-defined context, and CONTEXT[1-6]\_VALUE with the actual value of that context.

## Manage Elements

### Elements: How They Work in Salary, Absence, Benefits, and Payroll

Elements are building blocks that help determine the payment of base pay, benefits, absences, and other earnings and deductions. The components of elements are set up differently based on how the element is to be used.



#### Base Pay Management

To manage base pay, you attach a single earning element to each salary basis to hold base pay earnings, and assign a salary basis to each worker. When a manager or compensation specialist enters a base pay amount for a worker, the amount is written to the payroll element input value associated with the worker's salary basis and used in payroll processing to generate payment amounts.

#### Absence and Accruals

You can manage employee absences and leave time. To facilitate reporting and analysis of employee absences, you can distinguish between absence categories, absence types, and absence reasons. You can associate an absence type with an element to maintain an absence balance for an employee. You can associate



absence types and other elements with accrual plans to determine the net accrual of an employee.

## **Benefits**

Attach elements at various levels in the benefits object hierarchy to create deductions and earnings that can be processed in a payroll run to calculate net pay.

## **Payroll**

For Oracle Fusion Global Payroll, you define earning and deduction elements, such as bonus and overtime earnings and involuntary deductions. These elements incorporate all the components required for payroll processing, including formulas, balances, and formula result rules.

# **Elements: Explained**

Elements are the building blocks of payroll and benefits. There is no limit to the number of elements you can define. You define the policies or business rules that govern the allocation of these elements to your workers.

Elements can represent:

- Earnings, such as salary, wages, and bonuses
- Compensation, such as employee stock purchase and insurance plans
- Absences from work
- Tangible items distributed to persons, such as tools, uniforms, mobile phones, or computers
- Statutory deductions, such as taxes, voluntary deductions, such as contributions to charities or savings plans, and involuntary deductions, such as court orders, as well as pretax deductions
- Employer taxes and other employer liabilities

Oracle Fusion supplies many predefined elements while additional elements are generated when you define certain types of compensation and payroll elements through templates.

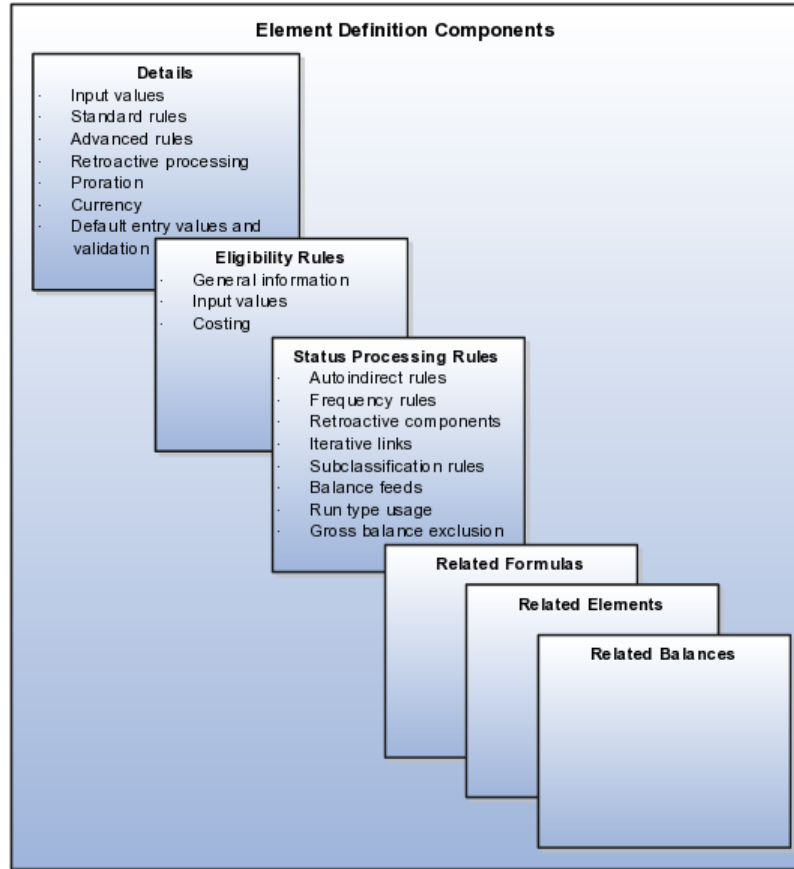
## **Predefined Elements**

The predefined elements are specific to your localization. They typically include deductions for tax and wage attachments. You cannot make any changes to these predefined elements.

## **Element Creation**

You can create many earnings and deductions from element templates. The templates include the elements, balances, balance feeds, and formulas required for payroll processing. You can configure any of these definitions to match your specific business requirements.

The components of an element's definition are available for entry based on the primary and secondary classification you select, for example a standard earning. This diagram illustrates element definition components and what is defined in each component.



For example, you can define an element called Wage, for hourly paid workers. You classify the element in the predefined classification Earnings, which determines when it is processed in the payroll run and what payroll balances it feeds.

You must specify at least one input value, in this case Hours Worked, which must be entered in each payroll period. If required, you can define multiple input values with fixed values, defaults, or validation.

You associate a formula with the element, to calculate the wage for the payroll period. A simple formula might be hours worked, from the input value, multiplied by an hourly rate, from compensation information on the employment record. You define who is eligible for the element by assigning eligibility criteria to various components in the persons employment record, such as grade, payroll, salary basis, or organization. In this example, the wage element is available to all persons on the weekly payroll.

## Maintaining Elements: Explained

After you have defined and used an element, updates to the element are limited to ensure the integrity of the element for retroactive processing and the balances of the input values. You cannot remove existing input values or add new ones if you have created entries for the element. You must add an input value to an element before you create any element entries, or set the element entries effective date to the element's start date.

You can make the following changes to an element that has been previously processed:

- Change a required input value to be optional.
- Alter the sequence in which input values appear in the Element Entries flow.
- Change the input value validation rules for minimum, maximum, lookup, or formula.
- Change your specification of which input values create database items.

## Determining Entry Values for an Element: Critical Choices

You can select rules for the element's entry value to define how you can update the element entries. The options are:

- Automatic entry
- Allow multiple entries in same period
- Additional entry

### Automatic Entry

Entry values can be automatically added in element entries in three ways.

1. Elements can be defined to default an input value at creation. The user defining the element can specify the entry value to be defaulted when an element entry is created. Users can override or change the default at any time. Changes to this type of a default value on the element do not affect existing element entries.
2. Elements can be defined to default an input value at run time. When this is selected, the element will automatically default the element entry value. This value can be updated if needed. A change to the default value for an input value set to default at run time will automatically change the value to be applied at run time for everybody with an entry for that element.
3. Some entry values are automatically created by a service or process used with compensation, benefits, or formula results.

---

### Important

An element with automatic entry allowed cannot **allow multiple entries in the same period**.

---

### Allow Multiple Entries in Same Period

This option allows you to give a person more than one entry of the element in the same pay period. For example, if you enter overtime hours on a weekly basis for monthly-paid persons, you might need to give a person five entries of an overtime element in each period.

If you are creating a net-to-gross element, you must select **Allow multiple entries in same period**.

## Additional Entry

This option allows you to add an occasional one time entry for recurring elements. This additional entry can override or add to the normal entry amount.

## Determining an Element's Latest Entry Date: Critical Choices

An element's latest entry date determines how element entries process after a person is terminated or transferred to another payroll. The options are:

- Final close
- Last standard earning date
- Last standard process date

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### Note

These are the predefined options, you can create others that fit your business needs.

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### Final Close

This option allows the element to stay open for entries beyond a persons last day worked. For example, you want the element to stay open to pay a severance package to a terminated person.

### Last Standard Earning Date

This option stops all element entries on the date the person leaves. It is recommended to use this option for recurring entries such as salary.

---

### Note

When you select the Last Standard Earning Date, also select proration for the element. This ensures the element is processed for proration purposes, even if it is not active at the end of a payroll period.

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### Last Standard Process Date

The last standard process date defaults to the last day of the pay period in which the person is terminated, but you can set it to a later period when you terminate a person. It enables all element entries to stop on the last standard process date or on the date the assignment ends, if this is earlier.

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### Note

This option is only available for Oracle Fusion Global Payroll users.

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## Element Input Values: Explained

An element's input values defines the entry values available on each entry of this element. Each input value has a unit of measure defined, and can have validations and conditions defined to control the data entry of the element entry assigned to a person. For example, an earnings element may have an input value for hours worked, which is defined as required and has a unit of measure of number.

When you create an element, some input values are created automatically if you use Oracle Fusion Global Payroll or Oracle Fusion Global Payroll Interface. For Global Payroll Interface, this applies to earnings elements only. You can create additional input values for any element, as needed.

### Input Value Options

For each input value created you can modify these attributes:

Field	Purpose
Display Sequence	Control the order in which the entry value is displayed on element entries.
Special Purpose	Identify how an input value is used, irrespective of the name given to it. For example, it identifies if the input value holds a percentage value, a rate, or third-party payee details. It basically assists with processing the input value based on what type of information it holds.
Unit of Measure	Select the value that describes the type of value the entry value can hold, such as number or character.
Displayed	Select to display the input value on the element entry.
Allow User Entry	Select to enter values on element entries.
Required	Select to make the input value a required entry value on the element entry. If you select Required, you must also select Displayed and Allow User Entry.
Create a Database Item	Select to have a database item created for the input value to make the values available for formulas or system extract.
Default	Enter a value that appears as the default value for this entry value in element entries, if needed.
Apply default at runtime	<p>Select to have the default set on the element entry when the payroll process is run. Changes to the default value are reflected in the next processing after the effective date of the change.</p> <p>You can replace the default at runtime functionality by manually providing an entry value on the element entry.</p>
Minimum	Enter a minimum value for the element, if needed.
Maximum	Enter a maximum value for the element, if needed.
Validation Formula	Enter a formula that validates the entry value entered on element entries, if needed.
Validation Source	Use with the other input value options to select the valid validation method, such as lookups or formulas.
Lookup Type	Specify a lookup type to provide a list of values for an element entry value.
Warning or Error	Use when you are validating the input value or entering a minimum or maximum value. It specifies whether a warning or an error displays if the entry fails the validation condition or does not meet the minimum or maximum value indicated.

Reference	<p>Use to associate a balance context with the run result. For example, if you want to associate a context, such as jurisdiction, with an element; create an input value for jurisdiction and select the jurisdiction context in the reference field. Then the run result value of the input value will work as context value when updating the balance.</p> <p>If you select a reference then the lookup type and validation source values should be automatically set to the reference context. You need to provide the reference field first for the validation source value to be automatically populated.</p>
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#### Note

Once an element is processed, you cannot update certain input value attributes, such as unit of measure. This ensures that changing certain attributes will not invalidate prior results.

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## Element Result Rule Options: Explained

At minimum, an element needs one standard processing rule. This identifies the formula the payroll run uses to process the element for persons with an active employment record. It is also the default formula for other assignment statuses. However, you can define additional processing rules if you need to use different formulas for assignments at other statuses. For example, you could have two rules for a Wages element: Standard Wages and Paid Training Leave.

You can add one or more of the following optional results rules to an element:

- Direct result
- Indirect result
- Message
- Order indirect
- Stop
- Target indirect

For all formula result types except Direct Result or Message, select the target element name to which you want to pass the formula result. This element must have a processing priority causing it to process after the element sending the result.

For the formula result types Direct Result, Indirect Result, and Target Indirect, select the target input value to update.

#### Direct Result Rule

This is the element's run result, or a direct result updating one of the element's input values.

#### Indirect Result Rule

This result passes as an element entry to another nonrecurring element not yet processed.

## Message Rule

The formula issues messages under certain conditions. For example, a formula can check a loan repayment balance and, if the balance is zero, issue the message "Loan is repaid."

There are three severity levels for a message rule:

- Error  
This causes the run to roll back all processing for the employment record.
- Warning  
This does not affect payroll processing but warns you of a possible problem.
- Information  
This does not affect payroll processing.

## Order Indirect Rule

This result updates the subpriority of the element you select in the Target Element Name field.

## Stop

This formula result uses the Date Earned of the payroll run to put an end date on a recurring entry of this or another element (which must be defined with Allow Multiple Entries not selected).

## Target Indirect

This result updates recurring entries of this or another element on the effective date of the payroll run. The receiving element must be defined with Allow Multiple Entries not selected unless you are passing a recurring element's entries to itself, that is updating another entry of the same element. With this result rule, any future-dated changes to the entry will be overwritten by the results of the current payroll run.

# Element Eligibility: Explained

Element eligibility determines which people are eligible for an element. To determine eligibility, you assign element eligibility criteria to the components that persons must have to receive entries of the element. While some elements may represent compensation, deductions, and equipment available to all persons, many elements are available only to certain groups of persons. For example, your enterprise might provide company cars only to persons in the Sales Department. Eligibility criteria rule out the possibility of persons getting element entries by mistake. For example, you might want to give a production bonus only to those persons who work full time in Production and are on the weekly payroll. To do this you would define eligibility criteria for the element Production Bonus and the combination of the Production organization, the Full-Time assignment category, and the Weekly payroll.

## Eligibility Criteria

Element eligibility can be assigned by many different criteria.

- All payrolls or for specific payrolls
- Payroll statutory unit
- Legal employer
- Payroll relationship type
- Department in which the person works
- Location of person's office
- Job, for example, Associate Professor or Secretary
- Grade
- Groups to which the person belongs. You set up all the groups that are appropriate for your enterprise. For example, you could decide to group persons by company within a multi-company enterprise, and by union membership.
- Position, which is a class of job performed in a particular organization, for example, Associate Professor of Chemistry, or Finance Department Secretary.

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#### Note

In order to enter an element for a worker, you must define element eligibility for every element. This must be done for predefined elements and those you define. If you want the element to be available to all workers, you can save the element eligibility record with no criteria selected. This is the usual practice for compensation and benefit elements where you determine eligibility using eligibility profiles.

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#### Multiple Rules of Eligibility

You can define more than one eligibility criteria for each element but there must be no overlap between them. For example, you could create one criteria for the combination of grade A and the job Accountant. However, you could not create one criteria for grade A and a second for the job Accountant. This would imply that an accountant on grade A is eligible for the same element twice. If you have more than one criteria for an element, you can enter different default values, qualifying conditions, and costing information for each eligibility group.

## Maintaining Element Eligibility: Explained

Element eligibility rules always control element entries.

After you have used an element you can make the following changes to the eligibility rules:

- Change the input value default values and validation.  
These changes affect all new entries. Changes to run time defaults affect existing entries. The system also uses the new validation rules to check any updates you make to existing entries.
- Date-effectively end all of the rules that apply to an element and define a new set of rules, which are effective from a later date. For example, suppose you have defined eligibility for a company car based on grade.



Following a change of policy you must now define eligibility based on job.

- You will not be allowed to end the element eligibility if any nonrecurring entries exist at the date you want to end the rule. You must delete existing entries before you end the element's eligibility.
- You can end the element eligibility if recurring entries exist. Any existing entries will be ended automatically when you end the element's eligibility.
- Change the qualifying conditions of age and length of service that persons must meet to be eligible for the element.

## Creating Earnings Elements for Payroll: Worked Example

The example shows how payroll managers create a regular earnings element using an element template.

First you create an earning element then update it to allow for multiple entries.

### Creating an Earnings Element

1. In the Payroll Calculation work area, click **Manage Elements**.
2. Click **Create**.
3. Complete the fields, as shown in this table.

Field	Value
Legislative Data Group	Your Legislative Data Group
Primary Classification	Standard Earnings
Secondary Classification	Regular

4. Click **Continue**.
5. On the Basic Details page, complete the fields, as shown in this table.:

Question	Answer
Name	REGULAR SALARY
Reporting Name	Regular Salary.
Effective Date	1/1/2010
Input Currency	US Dollar
Should every person eligible for the element automatically receive it?	No.
What is the earliest entry date for this element?	First Standard Earnings Date
What is the latest entry date for this element?	Last Standard Earning Date
At which employment level should this element be attached?	Assignment Level

Does the element recur each payroll period, or does it require explicit entry?	Recurring
Process the element only once in each payroll period?	Yes
Can a person have more than one entry of the element in a payroll period?	No
Process and pay element separately or with other earnings elements?	Process and pay with other earnings

6. Click **Next**.
7. On the Additional Details page, complete the fields, as shown in this table.

Question	Answer
What is the calculation rule?	Flat Amount
How do you want to derive the amount?	Entered value
What is the time-basis for this element?	Periodically
Is this element subject to proration?	No
Is this element subject to retroactive changes?	No
Use this element to calculate a gross amount from a specified net amount?	No
Should this element reduce regular earnings?	No

8. Click **Next**.
9. Verify the information is correct.
10. Click **Submit**.

## Reviewing an Earnings Element

On the Element Summary page, review the newly created element details for accuracy.

1. Review the basic details for the earnings element, for example Element Name, Classification, and Description.
2. In the Standard Rules section, verify that the element is recurring.
3. Verify that the employment level is assignment level.
4. In the Currency section, verify that the currency is US Dollars.

## Updating an Earnings Element

On the Element Summary page, update the newly created element details.

1. Click **Edit Element**.

2. Select today's date.
3. Click **Continue**.
4. Scroll to the Standard Rules region.
5. In the Entry Options section, select the **Allow multiple entries in same period** option.
6. Click **Save**.
7. In the Element Overview section, select the expand arrow.
8. Expand the Input Value folder.
9. Select **Pay Value**.
10. Select **Edit Element**.
11. Select today's day on the window, and click **Continue**.
12. In the Element Overview section, Select Actions, Create Element Eligibility Criteria.
13. On the **Element Eligibility** name field, enter REGULAR SALARY ELIG.
14. In the Eligibility Criteria section, select **All payrolls eligible**.
15. Click **Save**.
16. Click **Submit**.

## Creating Payroll Elements for Compensation: Worked Example

This example demonstrates how to create payroll elements for salary bases (base pay) as well as individual and workforce compensation plans using the US legislative data group.

The following table summarizes key decisions for each element that you create and provides the selections for this example.

Decision to Consider	In This Example
What is the primary classification?	For US compensation, you select one of these three choices: <ul style="list-style-type: none"> <li>• Standard Earnings</li> <li>• Supplemental Earnings</li> <li>• Voluntary Deductions</li> </ul>
What is the secondary classification?	This item is optional. The available choices vary based on the selected primary classification. <ul style="list-style-type: none"> <li>• <b>Standard Earnings:</b> Regular, Regular Not Worked</li> <li>• <b>Supplemental Earnings:</b> Bonus</li> <li>• <b>Voluntary Deductions:</b> Leave blank</li> </ul>
At which employment level should this element be attached?	Match the employment level to the level at which the salary basis is associated with workers, either <b>Assignment Level</b> or <b>Term Level</b> .

Does this element recur each payroll period, or does it require explicit entry?	<p>The typical selections for US compensation are:</p> <ul style="list-style-type: none"> <li>• <b>Standard Earnings:</b> Recurring*</li> <li>• <b>Supplemental Earnings:</b> Nonrecurring For co-existence, it is typically Recurring*.</li> <li>• <b>Voluntary Deductions:</b> Recurring*</li> </ul> <p>* The default value for this field.</p>
Which input values should I leave for the application to display?	<p>For payroll elements associated with:</p> <ul style="list-style-type: none"> <li>• Salary bases (base pay): Display only <b>Amount</b> or <b>Rate</b> (hourly frequency)</li> <li>• Individual and workforce compensation plans: Display only the <b>Amount</b> input value.</li> </ul>

To create payroll elements for salary bases and compensation plans, you perform these tasks:

1. Create the element.
2. Enter basic information.
3. Enter additional details for standard earnings elements, if you also implemented Oracle Fusion Global Payroll.
4. Review selections and submit the element.
5. Show only the **Amount** or **Rate** input value.
6. Set minimum and maximum amounts for supplemental earnings as well as standard earnings elements with a Regular Not Worked secondary classification.
7. Set up open eligibility.

## Create Element

1. On the Manage Elements page, click the **Create** icon.
2. In the Create Element dialog box, select your legislative data group, such as **US LDG**.
3. Select the primary classification that matches the purpose or use of the payroll element.

Example Purpose or Use	US LDG Primary Classification
Recurring base pay, such as annual salaries and hourly earnings	Standard Earnings
Recurring payments, such as an allowance	Standard Earnings
Nonrecurring payments, such as a bonus	Supplemental Earnings
Recurring voluntary deductions, such as savings plans or charitable contributions	Voluntary Deductions

4. Select the secondary classification that corresponds to the selected primary classification.

Example Purpose or Use	US LDG Secondary Classification
Recurring base pay	Regular
Recurring payment	Regular Not Worked
Nonrecurring payment	Bonus
Recurring voluntary deduction	Select the relevant choice. If there is none, leave it blank.

5. Click **Continue**.

## Enter Basic Information

1. Complete the general fields, as shown in this table.

Field	Sample Value
<b>Name</b>	Annual Salary Hourly Wages Allowance Spot Bonus Red Cross Contribution
<b>Reporting Name</b>	Enter the name that you want to display on reports for this earnings or deduction payroll element.
<b>Effective Date</b>	1/1/1951  Enter a very early date so that the payroll element is available for use immediately in your salary bases as well as individual and workforce compensation plans.
<b>What is the earliest entry date for this element?</b>	First Standard Earning Date
<b>What is the latest entry date for this element?</b>	Last Standard Process Date
<b>At which employment level should this element be attached?</b>	Match the employment level to the level at which the salary basis is associated with workers, either <b>Assignment Level</b> or <b>Term Level</b> .
<b>Does this element recur each payroll period, or does it require explicit entry?</b>	For nonrecurring payments such as a bonus, select <b>Nonrecurring</b> .  For all other purposes or uses in this worked example, as well as in HCM coexistence implementations, accept the default ( <b>Recurring</b> ).

2. To accept the remaining default values, click **Next**.

## Enter Additional Details

These steps apply only to recurring base pay elements when you also implemented Oracle Fusion Payroll. The Compensation application does not display this page if Oracle Fusion Global Payroll is not implemented too.

For hourly payroll elements, in **What is the calculation rule?**, select **Unit X Rate**.

For annual salary and Regular Not Worked standard earning elements, complete the following steps.

1. Complete the additional detail fields, as shown in this table

Field	Sample Value
Is this element subject to proration?	Yes
Proration Group	Entry Changes for Proration
Is this element subject to retroactive changes?	Yes
Retro Group	Entry Changes for Retro

2. To accept the remaining default values, click **Next**.

## Review and Submit

1. Review all items to ensure everything is correct.
2. Click **Submit**.

## Show Only Amount or Rate Input Value

For payroll elements associated with salary bases, show only the **Amount** or **Rate** (hourly frequency) input value. For individual and workforce compensation plans, show only the **Amount** input value. Clear the **Displayed** option for all other input values.

1. In the Elements Overview region, select the input value that should not be displayed, for example, **Periodicity**.
2. In the Input Values region, in the **Edit** menu, select **Correct**.
3. Click the **Displayed** option to clear the check mark.
4. Click **Submit**.
5. Repeat steps 1 through 4 for all remaining input values that should not appear.

## Set Minimum and Maximum Amounts

Complete these steps for supplemental earnings elements as well as standard earnings elements with a Regular Not Worked secondary classification.

1. In the Element Overview region, select **Amount**.
2. In the Input Values region, in the **Edit** menu, select **Correct**.
3. In the Default Entry Values and Validation region, enter a minimum or maximum value, or both.
4. Select **Warning** or **Error**, as appropriate.

Value	Usage
<b>Warning</b>	Display a message to users when they enter an amount that is less than the minimum value (if set) or greater than the maximum value (if set), while still enabling them to continue with their submissions.
<b>Error</b>	Display a message to users when they enter an amount that is less than the minimum value (if set) or greater than the maximum value (if set) and prevent them from continuing until the amount is within the specified limits.

## Set Up Open Eligibility

Set up the element for eligibility without any criteria. For base pay earnings elements, eligibility is determined by the salary basis assigned to the worker. For individual and workforce compensation plans, eligibility for payroll elements is typically determined by eligibility profiles assigned to the plans and options in plans.

1. In the Elements Overview region, select **Element Eligibility**.
2. In the **Actions** menu, select **Create Element Eligibility Criteria**.
3. In the Element Eligibility, General Information region, in the **Element Eligibility Name** field, enter the element name with the suffix **Open**.  
Example: For the payroll element Allowance, the element eligibility name would be **Spot Bonus Open**.
4. Click **Submit**.
5. Click **Done**.

## Creating Payroll Elements for Global Payroll Interface: Worked Example

The example shows how application implementation consultants create elements for Oracle Fusion Global Payroll Interface using element templates with US classifications.

First you create an element then update it so that it is available to all payrolls.

The following table summarizes key decisions for each element that you create and provides the selections for this example.

Decision to Consider	In This Example
What is the primary classification?	One of these three choices: <ul style="list-style-type: none"> <li>• Standard Earnings</li> <li>• Supplemental Earnings</li> <li>• Voluntary Deductions</li> </ul>

What is the secondary classification?	<p>This item is optional. The available choices vary based on the selected primary classification.</p> <ul style="list-style-type: none"> <li>• <b>Standard Earnings:</b> Regular, Regular Not Worked</li> <li>• <b>Supplemental Earnings:</b> Bonus</li> <li>• <b>Voluntary Deductions:</b> Leave blank</li> </ul>
At which employment level should this element be attached?	<p>Match the employment level to the <b>Assignment Level</b>.</p> <hr/> <p><b>Note</b></p> <p>Although a salary basis can be associated with a worker on either the assignment level or the terms level, most third-party payroll providers will expect salary information at only the assignment level.</p> <hr/>
Does this element recur each payroll period, or does it require explicit entry?	<p>One of these three choices:</p> <ul style="list-style-type: none"> <li>• <b>Standard Earnings:</b> Recurring</li> <li>• <b>Supplemental Earnings:</b> Nonrecurring</li> <li>• <b>Voluntary Deductions:</b> Recurring</li> </ul>

## Creating an Element

1. In the Setup and Maintenance work area, click **Manage Elements**.
2. In the Search Results section, click **Create**.
3. Select your legislative data group.
4. Select the primary classification that matches the purpose or use of the payroll element.

Example Purpose or Use	Primary Classification
Recurring base pay, such as annual salaries and hourly earnings	Standard Earnings
Recurring payments, such as an allowance	Standard Earnings
Nonrecurring payments, such as a bonus	Supplemental Earnings
Recurring voluntary deductions, such as savings plans or charitable contributions	Voluntary Deductions

5. Select the secondary classification that corresponds to the selected primary classification.

Example Purpose or Use	Secondary Classification
Recurring base pay	Regular
Nonrecurring payment	Bonus



Recurring voluntary deduction	Select the relevant choice. If there is none, leave it blank.
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6. Click **Continue**.
7. On the Basic Information page, complete the fields as shown in this table, and then click **Next**.

Field	Sample Value
Name	Annual Salary Hourly Wages Allowance Spot Bonus Red Cross Contribution
Reporting Name	Enter the name that you want to display on reports for this earnings or deduction payroll element.
Effective Date	1/1/1951  Enter a very early date so that the payroll element is available for use immediately.
Input Currency	US Dollar
Should every person eligible for the element automatically receive it?	No
What is the earliest entry date for this element?	First Standard Earning Date
What is the latest entry date for this element?	Last Standard Process Date
At which employment level should this element be attached?	Assignment Level
Does this element recur each payroll period, or does it require explicit entry?	For nonrecurring payments such as a bonus, select <b>Nonrecurring</b> .  For all other purposes or uses in this worked example, select <b>Recurring</b> .
Process the element only once in each payroll period?	Yes
Process and pay element separately or with other earnings elements?	Process and pay with other earnings.

8. Verify the information is correct, and then click **Submit**.

## Setting Up Element Eligibility and Input Values

On the Element Summary page, update the newly created element details.

1. From the Edit menu, select **Update**.
2. In the Element Overview hierarchy, select **Element Eligibility**.
3. From the Actions menu, select **Create Element Eligibility Criteria**.
4. In the **Element Eligibility** name field, enter the element name with the suffix: Open.
5. For earnings elements, in the Eligibility Criteria section, select **All payrolls eligible**.
6. For deduction elements, create the primary input value as follows:
  - In the Element Overview hierarchy, select **Input Values**.
  - From the Actions menu, select **Create Input Values**.
  - Enter the values shown in the following table.

Field	Value
Name	Period Deduction Amount
Display Sequence	1
Special Purpose	Primary input value
Unit of Measure	Money
Create a Database Item	Yes

---

**Note**

Input values for earnings elements are created automatically, so no additional setup is required for earnings elements.

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7. Click **Save**.
8. Click **Submit**.

## Absence Elements

### Absence Processing in Payroll Runs: Critical Choices

When you create an absence element for an absence type, your choice of element classification determines how absence entries display on the statement of earnings. You must use one of the following classifications:

- Information classification or Absence classification
- Standard Earnings classification

#### Using the Information or Absence Classification

Use either of these classifications if you want to:

- Process absences in a single calculation.
- Prevent absence entries from appearing on the statement of earnings that the payroll run generates.

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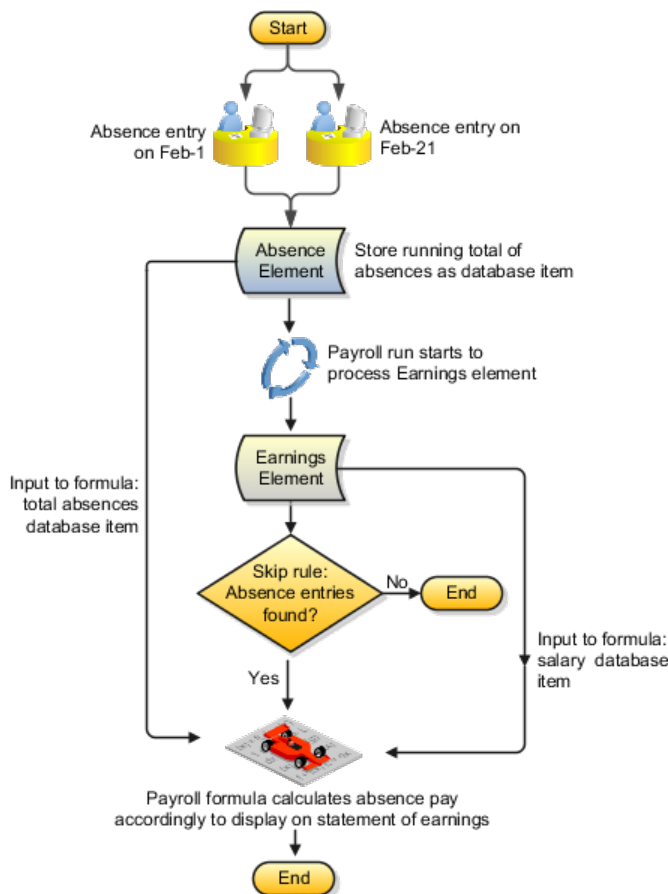
## Note

Although both the Information classification and Absence classification work in the same way, you can select either classification depending on your reporting requirement.

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Since payroll runs do not process elements in the Information or Absence classifications, you can use an Earnings element to manage the calculation and payment of absences. For example, you can define a skip rule for an Earnings element that triggers processing when it finds an entry for the absence element. The payroll formula associated with the Earnings element uses the database item of the absence element to retrieve the total number of absences. Then the formula uses another database item to retrieve the salary or hourly rate to calculate the total absence pay for the period and, if necessary, reduce the regular earnings.

The following figure depicts the relation between the Absence element, Earnings element, skip rules, and the payroll formula associated with the Earnings element:



## Using the Standard Earnings Classification

Use this classification if you want to:

- Process absences individually in each payroll period.
- Treat absence entries as earnings.

This approach creates a one-line entry on the statement of earnings for each absence type. For example, you can use this classification if your employees submit timecards, and you want absences taken by these employees to show on the statement of earnings.

## Recurring and Nonrecurring Absence Elements: Critical Choices

When you set up an absence type, you can determine how absences are processed in payroll runs. Choose the type of element to associate with the absence type:

- Use a nonrecurring absence element.
- Use a recurring absence element (only if you use Oracle Fusion Global Payroll and enable proration).

### Using a Nonrecurring Absence Element

Nonrecurring absence elements are valid for the payroll period in which the absence starts. The application creates the entry only when you enter the absence end date. The element entry records the full value of the absence duration even if the end date falls beyond the payroll period.

For example, if you enter an absence that starts on May 24 and ends on June 5 for someone on a monthly payroll, the element entry is dated May 1 to May 31 and records the full value of the absence duration (13 days).

### Using a Recurring Absence Element

Use a recurring absence element if you want the payroll run to process absences that have not ended. To process the absence element and calculate the absence duration in each payroll period, you use a payroll formula that handles proration.

Recurring absence element entries start on the absence start date and end on the absence end date (if there is an end date). If the absence starts or ends in the middle of a payroll period, the payroll run detects and processes the absence using the proration functionality.

## Creating an Absence Element and Absence Type: Worked Example

This example demonstrates how to create absence types and absence elements to manage absences that employees record.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What types of absences can employees record?	Sick leave and vacation leave
Who is eligible for sick leave and vacation leave?	All employees are eligible for sick leave. However, only full-time employees are eligible for vacation leave.
Should absence entries generate payments?	No

How must payroll runs process the absences?	Payroll runs must process the entire absence duration in the pay period in which the absence starts.
Should an absence balance for each employee be maintained?	Yes, select the <b>Increasing</b> option when you create the absence type so that new absence entries must add to the absence balance.
How must the absence duration be calculated?	Using work schedules. Select Yes in the <b>Enable Work Schedules</b> option.
Can employees change the absence duration that is automatically calculated when they record an absence?	No.

Create two absence elements to store an aggregate of absences relating to sick leave and vacation leave. These elements must use the Absence classification so that they do not generate payments. Define eligibility criteria for the vacation leave element so that only full-time employees can record absences of this type. Create two absence types for sick leave and vacation leave.

## Creating Absence Elements

1. On the Payroll Calculation work area, click Manage Elements to open the Manage Elements page.
2. Click **Create Element**.
3. Complete the fields for each absence element, as shown in this table.

Field	Value (for the Sick Leave absence element)	Value (for the Vacation Leave absence element)
Primary Classification	Absence	Absence
Name	Sick Leave	Vacation Leave
Reporting Name	Sick Leave	Vacation Leave
Effective Date	January 1, 2010	January 1, 2010
Should every person eligible for the element automatically receive it?	Yes	Yes
At which employment level should this element be attached?	Assignment	Assignment
Does this element recur each payroll period, or does it require explicit entry?	Nonrecurring	Nonrecurring
Process the element only once in each payroll period	Yes	Yes
Can a person have more than one entry of this element in a payroll period?	Yes	Yes

4. Click **Next**.
5. On the Create Element: Additional Information page, right-click Input Values, and click Create Input Value..
6. Complete the fields for the input value for both the absence elements, as shown in this table.

Field	Value
Name	Duration
Display Sequence	1
UOM	Day

7. Click **Apply**.
8. Right-click **Element Eligibility**, and then click **Create Element Eligibility**.
9. For the Vacation Leave absence element, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Employment Category	Full Time Employment

10. For the Sick Leave element, select the **Link to All Payrolls** option so that all employees receive the element.
11. Click **Apply**.
12. Click **Submit**.

## Creating Absence Types

1. On the Set Up Workforce Deployment work area, click **Manage Absence Types** to open the Manage Absence Types page.
2. Click **Create**.
3. Complete the fields for each absence type, as shown in this table.

Field	Value (for the Sick Leave absence type)	Value (for the Vacation Leave absence type)
Name	SickLeave	Vacation Leave
Legislative Data Group	Select the legislative data group in which you created the Sick Leave absence element.	Select the legislative data group in which you created the Vacation Leave absence element.
Valid From	January 1, 2010	January 1, 2010
Auto Override	No	No
Record at Person Level	Yes	Yes
Allow Absence Overlaps	No	No
Enable Work Schedules	Yes	Yes
Element Name	Sick Leave	Vacation Leave

Units	Days	Days
Input Value	Duration	Duration
Balance	Increasing	Increasing

4. Click **Submit**.

## FAQs for Manage Elements

### What's the difference between a recurring and nonrecurring element?

A recurring element has an entry that applies in every pay period until the entry is ended.

A nonrecurring element has an entry that applies in one pay period only. It is only processed once per pay period. The dates of the pay period are determined by the payroll to which the person is assigned.

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#### Note

A base pay element associated with a salary basis must be recurring.

A net-to-gross element must be nonrecurring.

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### What's an element's skip rule?

A skip rule is a formula that determines the circumstances in which an element should be processed. If the conditions of the formula are met, then the element is processed. Otherwise the element is skipped from processing.

### When does an element get processed with a processing option of process once per period?

An element processes entries only in the first payroll run of each period for this element.

If this option is not available for your localization, you can select a skip rule to process this element once each period.

### What happens if the Closed for Entry option is selected on an element?

It prevents all new element entries for the element. Selecting this option will not affect any existing element entries.

Use caution with this feature. When hiring, terminating, or updating assignments, this option will prevent element entry creation for the element, even if the element is used for automatic entries.

### What happens if I override an element entry that has a runtime default set at the element's definition?

If you override it, then any subsequent changes to the default value on the element or element eligibility definition will not affect the element entry. However, you can clear your entry if you want to restore the default value.

# Manage Object Groups

## Object Groups: Explained

Use object groups to define subsets of objects used for processing or reporting.

There are four types of object groups:

- Element
- Payroll Relationship
- Work Relationship
- Deduction Card

### Element Groups

Element groups limit the elements processed for payroll, reporting, or cost distribution purposes.

There are two usages for an element group:

- Run group  
Specifies the elements to use in a process.
- Distribution group  
Defines the grouping of elements to distribute element costing results.

All element groups are static. You select the element classifications to add and then include or exclude additional elements from the group. Or you can select specific elements to include without using element classifications.

### Payroll Relationship Groups

Payroll relationship groups limit the persons processed for payroll, data entry, and reporting. When defining the group specify the payroll definition which retrieves the payroll relationships assigned to it. Every group is limited to the payroll relationships assigned to a single payroll that you select. You can further define the group statically or dynamically.

- If you define the group statically, select the payroll relationships, terms, and assignments to include or exclude in the group.
- If you define the group dynamically, use a fast formula of type Payroll Relationship Group to determine the criteria that determines the payroll relationships, terms, and assignments to include in the group. Then you can individually select additional payroll relationships, terms, and assignments to include in or exclude from the group.

### Work Relationship Groups

Work relationship groups limit the persons processed for human resources and reporting. For example, you can use work relationship groups in custom



extracts. If you define the group statically, select the work relationships, terms, and assignments to include or exclude in the group. If you define the group dynamically, use a fast formula of type Work Relationship Group to determine the criteria that determines the work relationships, terms, and assignments to include in the group. Then you can individually select additional work relationships, terms, and assignments to include in or exclude from the group.

### **Deduction Card Groups**

Deduction card groups are read-only. They are automatically created when deductions cards are created. For example, in the UK, they are used for year-end processing.



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## Define Security for Payroll

### Creating Payroll Security Profiles: Examples

These examples illustrate different methods by which access to payrolls can be assigned to members of the Payroll department. Payroll definitions are first organized into appropriate payroll security profiles through the Manage Payroll Security Profiles task. The security profile is then included in an HCM data role or assigned directly to a job role, and that role is provisioned to a user.

#### **Payroll Period Type**

This example illustrates the most common scenario, where payrolls are organized by their period type. Monthly payrolls are sorted into the same security profile; semiweekly into another; and so on. The security profile is then included in an HCM data role or assigned directly to a job role, and that role is provisioned to the payroll administrators.

#### **Regional Assignments**

This example illustrates the scenario where payrolls are organized by the regions of the target employees' work areas. For example, payrolls run against North American facilities are added to one security profile, while European facilities are added to another.

#### **Individual Contributors**

This example illustrates an ad hoc implementation where payrolls are organized according to the work responsibilities of the owning Payroll Manager. For example, payroll access may be restricted only to those administrators who created and manage their definitions.

### Payroll Flow Security and Flow Owners: Explained

Your HCM data role security determines which payroll flows you can submit or view on the Payroll Dashboard or payroll work areas, including flows delivered for a single report or process. When you submit a payroll flow, you become the payroll flow checklist owner.

## Payroll Checklist Owners and Task Owners

The payroll checklist owner inherits any task within the flow, unless the payroll flow pattern specifies a different owner for a task.

A checklist or task owner can reassign a task to someone else. For example, as a checklist owner, if a task is overdue and the task owner is on leave, you might reassign the task to another team member.

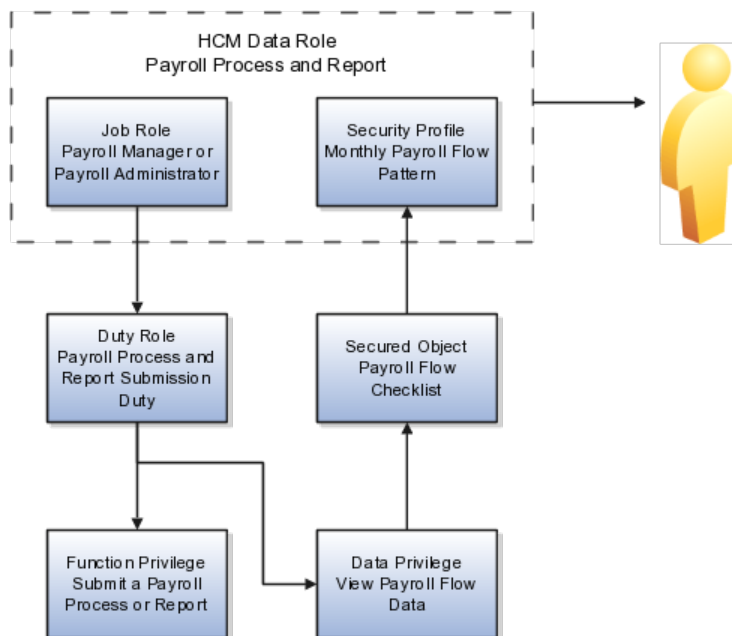
## Payroll Flow Security and HCM Data Roles

HCM data roles secure the access to payroll flows through data privileges and to the payroll tasks on a payroll checklist through functional privileges.

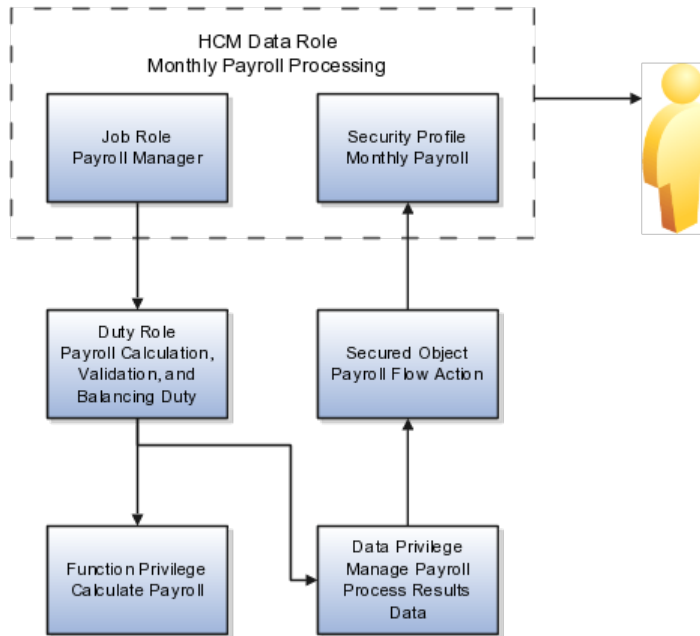
If you cannot:

- Submit or view a payroll flow, confirm that the data role assigned to you includes a security profile for the payroll flow pattern.
- Perform a task such as a process or report, confirm that your data role is based on a job or abstract role whose inherited duty roles include necessary functional privilege to perform that task.

In the following figure, both the payroll administrator and the payroll manager are assigned duty roles with the functional privilege to submit a process or report and the data privilege to view the data for the monthly payroll flow pattern. Both the manager and administrator can perform the same task or have that task reassigned to them.



In the following figure, only the payroll manager not the payroll administrator job role inherits the functional privilege to calculate payroll. The payroll manager should not reassign a flow task to a payroll administrator, because the administrator does not have the necessary functional privilege.



## Creating Payroll Flow Security Profiles: Examples

The following examples illustrate different methods by which payroll flows can be organized into appropriate security profiles. Access to those profiles is granted to workers through the Assign Security Profiles to Role page. Users must also be granted access to the appropriate tasks within the flow.

### Payroll Processing and QuickPay Flows

Payroll administrators responsible for payroll processing would be granted permission to submit the Payroll Cycle and QuickPay flows. Therefore, their payroll flow security profiles must include the appropriate flows.

### End of Year Reporting

Administrators responsible for End of Year reporting would be granted permission to submit the End of Year and Archive End-of-Year Payroll Results flows. Therefore, their payroll flow security profiles must include the appropriate flows.

### Hiring and Terminations

Administrators responsible for hiring and terminations should be granted permission to flows such as New Hire flow and Termination flow.



## Define Absences

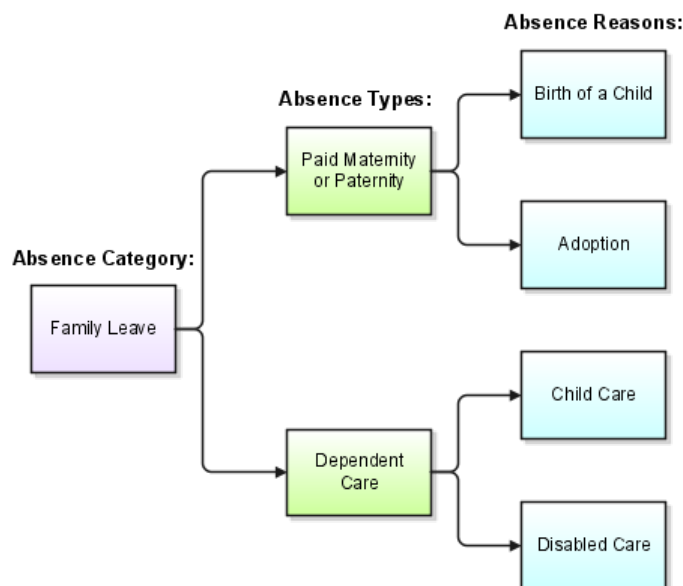
### Manage Absence Types

### Absence Types, Categories, and Reasons: How They Work Together

To facilitate reporting and analysis of employee absences, you can distinguish between absence categories, absence types, and absence reasons.

An absence category (such as family leave) contains a set of related absence types, such as paid maternity and dependent care. Additionally, an absence type (such as paid maternity or paternity) can contain reasons, such as the birth of a child and adoption.

The following graphic shows examples of absence types, categories, and reasons and how they are related:



### Absence Categories

You can extend the list of predefined categories using the ABSENCE\_CATEGORY lookup type. Some absence categories may be predefined for your legislation.

## Absence Types

Defining an absence type is a two-step process:

1. Defining the absence element to maintain a running total of absences taken by an employee (optional).
2. Defining the absence type and optionally associating a category, reasons, and the absence element with it.

## Absence Reasons

You can provide reasons to select from when recording employees' time taken for an absence type. For example, if you need information to analyze the particular family-related responsibilities that cause employees to miss work, you can use the ABSENCE\_REASON lookup type to define reasons for absence types. You define absence reasons independently of an absence type so that you can use the same reasons for multiple absence types.

## Absence Balance Type: Critical Choices

When you create an absence type, you can specify whether the application should maintain an increasing absence balance, a decreasing balance, or no absence balance.

### Increasing Absence Balance

An increasing balance for an absence type starts with no time entered and increases as you enter the hours or days absent. For example, if the Compassionate Leave absence type has an increasing balance, the balance starts from zero for each employee and increases by the number of hours entered for each absence of this type.

### Decreasing Absence Balance

Set up a decreasing balance if your enterprise sets a maximum time allowed for an absence type. (If the absence type is used for an accrual plan, it is simpler to use an increasing balance and an accrual formula that records an up-front accrual amount.)

For example, suppose your enterprise allows certain employees 32 hours leave per year for professional development. The Professional Leave absence type can have a decreasing balance, and an initial entry of 32 hours. If you record an employee absence of 4 hours for this absence type, the decreasing balance shows 28 hours still available to be taken.

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### Note

Decreasing absence balances require more maintenance than increasing balances. They need a prorated initial balance entry for all eligible new hires throughout the year, and require resetting each year for all eligible employees.

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### No Absence Balance

If you do not want to maintain an absence balance, you do not need to create and associate an absence element with the absence type.



## Recurring and Nonrecurring Absence Elements: Critical Choices

When you set up an absence type, you can determine how absences are processed in payroll runs. Choose the type of element to associate with the absence type:

- Use a nonrecurring absence element.
- Use a recurring absence element (only if you use Oracle Fusion Global Payroll and enable proration).

### Using a Nonrecurring Absence Element

Nonrecurring absence elements are valid for the payroll period in which the absence starts. The application creates the entry only when you enter the absence end date. The element entry records the full value of the absence duration even if the end date falls beyond the payroll period.

For example, if you enter an absence that starts on May 24 and ends on June 5 for someone on a monthly payroll, the element entry is dated May 1 to May 31 and records the full value of the absence duration (13 days).

### Using a Recurring Absence Element

Use a recurring absence element if you want the payroll run to process absences that have not ended. To process the absence element and calculate the absence duration in each payroll period, you use a payroll formula that handles proration.

Recurring absence element entries start on the absence start date and end on the absence end date (if there is an end date). If the absence starts or ends in the middle of a payroll period, the payroll run detects and processes the absence using the proration functionality.

## Absence Processing in Payroll Runs: Critical Choices

When you create an absence element for an absence type, your choice of element classification determines how absence entries display on the statement of earnings. You must use one of the following classifications:

- Information classification or Absence classification
- Standard Earnings classification

### Using the Information or Absence Classification

Use either of these classifications if you want to:

- Process absences in a single calculation.
- Prevent absence entries from appearing on the statement of earnings that the payroll run generates.

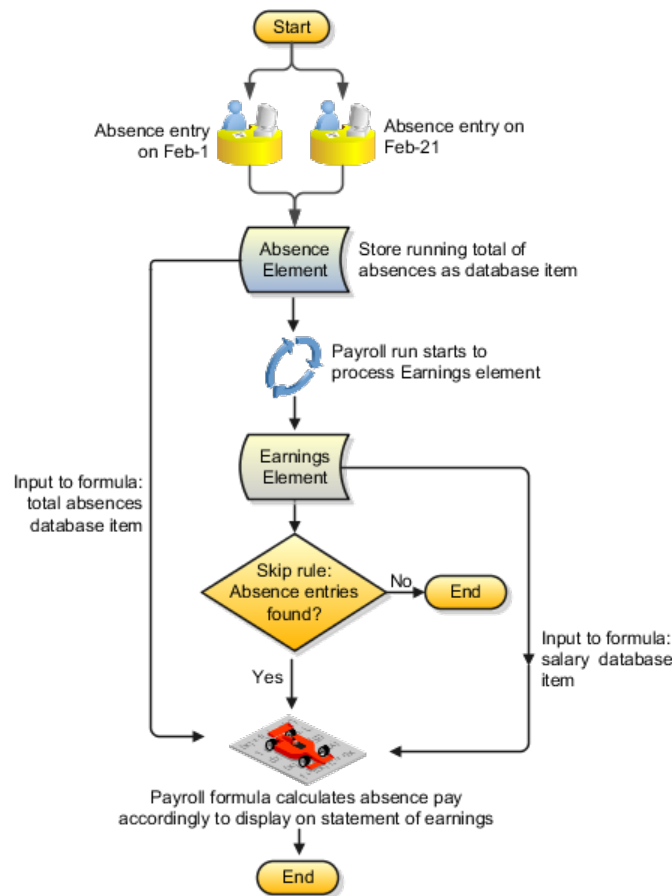
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#### Note

Although both the Information classification and Absence classification work in the same way, you can select either classification depending on your reporting requirement.

Since payroll runs do not process elements in the Information or Absence classifications, you can use an Earnings element to manage the calculation and payment of absences. For example, you can define a skip rule for an Earnings element that triggers processing when it finds an entry for the absence element. The payroll formula associated with the Earnings element uses the database item of the absence element to retrieve the total number of absences. Then the formula uses another database item to retrieve the salary or hourly rate to calculate the total absence pay for the period and, if necessary, reduce the regular earnings.

The following figure depicts the relation between the Absence element, Earnings element, skip rules, and the payroll formula associated with the Earnings element:



### Using the Standard Earnings Classification

Use this classification if you want to:

- Process absences individually in each payroll period.
- Treat absence entries as earnings.

This approach creates a one-line entry on the statement of earnings for each absence type. For example, you can use this classification if your employees

submit timecards, and you want absences taken by these employees to show on the statement of earnings.

## Absence Recording at Person or Assignment Level: Critical Choices

You can choose to record absences for an absence type at the person level or at the assignment level.

### Recording Absences at the Person Level

If you choose to record absences at this level, the absence entries will apply to the primary assignment of a person. For example, if a person has just a single assignment and they record an absence, you can set up the absence type to use the person level so that the absence applies to the primary assignment.

### Recording Absences at the Assignment Level

This level enables you to record absences for individual assignments of a person. For example, if your employees work for Organization A (their primary assignment) from Monday to Thursday, and work at Organization B (their secondary assignment) on Fridays, you may want to record and approve absences for every assignment separately. For reporting purposes, HR Specialists can suggest replacement workers for individual assignments.

## Absence Duration Calculation: Critical Choices

To determine how the application calculates the duration of absences for an absence type, you can use work schedules, or a formula, or working hours defined for the assignment.

### Using Work Schedules

If you enable work schedules for an absence type, the application calculates the duration of the absences based on the employees' work schedule (during the start and end dates) and applicable calendar events for their primary assignment. You set up availability information such as shifts, schedules, and calendar events, and assign them to appropriate levels in your workforce structures.

### Using a Formula

You can write a formula to calculate absence duration from the start and end dates entered for an absence. A default formula may have been supplied for your localization. However, you may want to override it with a formula that takes into account special work hours or shift patterns.

You must make a copy of the predefined `TEMPLATE_ABSENCE_DURATION` formula to make changes, and save the formula at any of the following workforce structure levels:

Level	Formula Name to Use
Enterprise	BG_ABSENCE_DURATION
Legislation	LEGISLATION_ABSENCE_DURATION

Legislative Data Group	CORE_ABSENCE_DURATION
------------------------	-----------------------

### Using Working Hours

If you have not enabled work schedules and there is no absence duration formula, the application calculates the difference between the absence end date and the absence start date to determine the duration. The application uses the working hours used by the assignment for the calculation.

## Absence Duration: How It Is Calculated

While recording an absence, when you enter an absence start date and end date, the application automatically calculates the absence duration.

### Settings That Affect Absence Duration

The absence duration calculation depends on whether the absence type was set up to use work schedules or an absence duration formula.

## How Absence Duration Is Calculated

If the absence type was set up to use work schedules, the application considers the primary work schedule that was set up for the primary assignment of the employee (or for the selected assignments if the absence type was set up to record absences for multiple assignments) to determine the number of working days or hours during the start and end dates of the absence. The application also considers calendar events that may apply to the employee during the absence period to determine the total absence duration.

If the absence type was not set up to use work schedules, the application searches for the absence duration formula in the following order:

1. Enterprise level
2. Legislation level
3. Legislative Data Group level

If there is no absence duration formula, the application uses the assignment working hours to calculate duration as the difference between the absence start and end dates.

## Creating an Absence Element and Absence Type: Worked Example

This example demonstrates how to create absence types and absence elements to manage absences that employees record.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What types of absences can employees record?	Sick leave and vacation leave
Who is eligible for sick leave and vacation leave?	All employees are eligible for sick leave. However, only full-time employees are eligible for vacation leave.

Should absence entries generate payments?	No
How must payroll runs process the absences?	Payroll runs must process the entire absence duration in the pay period in which the absence starts.
Should an absence balance for each employee be maintained?	Yes, select the <b>Increasing</b> option when you create the absence type so that new absence entries must add to the absence balance.
How must the absence duration be calculated?	Using work schedules. Select Yes in the <b>Enable Work Schedules</b> option.
Can employees change the absence duration that is automatically calculated when they record an absence?	No.

Create two absence elements to store an aggregate of absences relating to sick leave and vacation leave. These elements must use the Absence classification so that they do not generate payments. Define eligibility criteria for the vacation leave element so that only full-time employees can record absences of this type. Create two absence types for sick leave and vacation leave.

### Creating Absence Elements

1. On the Payroll Calculation work area, click Manage Elements to open the Manage Elements page.
2. Click **Create Element**.
3. Complete the fields for each absence element, as shown in this table.

Field	Value (for the Sick Leave absence element)	Value (for the Vacation Leave absence element)
Primary Classification	Absence	Absence
Name	Sick Leave	Vacation Leave
Reporting Name	Sick Leave	Vacation Leave
Effective Date	January 1, 2010	January 1, 2010
Should every person eligible for the element automatically receive it?	Yes	Yes
At which employment level should this element be attached?	Assignment	Assignment
Does this element recur each payroll period, or does it require explicit entry?	Nonrecurring	Nonrecurring
Process the element only once in each payroll period	Yes	Yes
Can a person have more than one entry of this element in a payroll period?	Yes	Yes

4. Click **Next**.
5. On the Create Element: Additional Information page, right-click Input Values, and click Create Input Value..
6. Complete the fields for the input value for both the absence elements, as shown in this table.

Field	Value
Name	Duration
Display Sequence	1
UOM	Day

7. Click **Apply**.
8. Right-click **Element Eligibility**, and then click **Create Element Eligibility**.
9. For the Vacation Leave absence element, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Employment Category	Full Time Employment

10. For the Sick Leave element, select the **Link to All Payrolls** option so that all employees receive the element.
11. Click **Apply**.
12. Click **Submit**.

## Creating Absence Types

1. On the Set Up Workforce Deployment work area, click **Manage Absence Types** to open the Manage Absence Types page.
2. Click **Create**.
3. Complete the fields for each absence type, as shown in this table.

Field	Value (for the Sick Leave absence type)	Value (for the Vacation Leave absence type)
Name	SickLeave	Vacation Leave
Legislative Data Group	Select the legislative data group in which you created the Sick Leave absence element.	Select the legislative data group in which you created the Vacation Leave absence element.
Valid From	January 1, 2010	January 1, 2010
Auto Override	No	No
Record at Person Level	Yes	Yes
Allow Absence Overlaps	No	No
Enable Work Schedules	Yes	Yes

Element Name	Sick Leave	Vacation Leave
Units	Days	Days
Input Value	Duration	Duration
Balance	Increasing	Increasing

- Click **Submit**.

## Using a Formula to Calculate Absence Duration: Worked Example

This example demonstrates how to use a formula to calculate the duration of absences recorded by employees.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What unit of time must employees record their absences in?	Days
What should the formula consider when calculating the absence duration?	The calculation must exclude weekends and public holidays from the absence duration.

Make a copy of the predefined absence duration formula and save it in the same legislative data group (LDG) as your absence type. Create a formula function that refers to a public holiday user table to calculate the number of holidays to exclude from the absence duration. Ensure that you do not enable work schedules for the absence type.

### Making a Copy of the Predefined Formula and Saving to an LDG

- On the Payroll Calculation work area, click **Manage Fast Formulas** to open the Manage Fast Formulas page.
- Search for the **TEMPLATE\_ABSENCE\_DURATION** formula.
- Open the formula and copy the formula text.
- Create a new formula using the following information:

Field	Value
Formula Name	LEGISLATION_ABSENCE_DURATION
Formula Type	Absence
Legislative Data Group	The LDG you select must be the one you created your absence type in.
Effective Start Date	A date that is earlier than or on the effective start date of the absence element

- Click **Continue** and paste the formula text you copied earlier in the **Formula Text** box.
- Click **Submit**.

## Creating a User-Defined Table for Public Holidays

1. On the Payroll Calculation work area, click **Manage User Tables** to open the Manage User-Defined Tables page.
2. Click **Create**.
3. Create a user table called **PUBLIC\_HOLIDAY\_CALENDAR** for your legislative data group and include in the table a list of public holidays.
4. Click **Submit**.

## Creating a Procedure and Formula Function

1. Create a PL/SQL package procedure called `per_abs_duration_daysoff` that refers to the user table and returns the number of holidays (weekends and public holidays) between the two dates.
2. Create a formula function called **DaysOff**. Associate this function with the PL/SQL package procedure.

## Modifying the LEGISLATION\_ABSENCE\_DURATION Formula

1. On the Payroll Calculation work area, click **Manage Fast Formulas** to open the Manage Fast Formulas page.
2. Search for the `LEGISLATION_ABSENCE_DURATION` formula.
3. Click **Edit**.
4. Remove the formula logic that calculates the absence duration in hours.

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### Note

The above step is optional. Removing this logic will enable you to manage your formula better. The formula will work as expected even if you retain these instances.

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5. Add logic to subtract the number of days returned by the **DaysOff** function (that you created earlier) from the absence duration:

```
.  
.   
.   
IF ((date_start WAS DEFAULTTED)  
OR (date_end WAS DEFAULTTED)) THEN  
    duration = TO_CHAR((DAYS_BETWEEN(date_end,date_start) + 1 -  
    DAYSOFF(date_start,date_end)))  
.   
.   
. 
```

## Configuring the Absence Type

1. Navigate to the **Manage Absence Types** page and open the required absence type.
2. Select **No** for the **Enable Work Schedules** option. This enables the application to use the formula to calculate the absence duration.



3. Click **Submit**.

## FAQs for Manage Absence Types

### Why can't I see my absence element on the absence types page?

Navigate to the **Manage Elements** page, and check that the absence element:

- Is effective on the current date
- Exists in the legislative data group that you want to create the absence type in
- Includes a proration group (if the element is recurring)
- Includes at least one input value with the unit of measure as Days or Hours

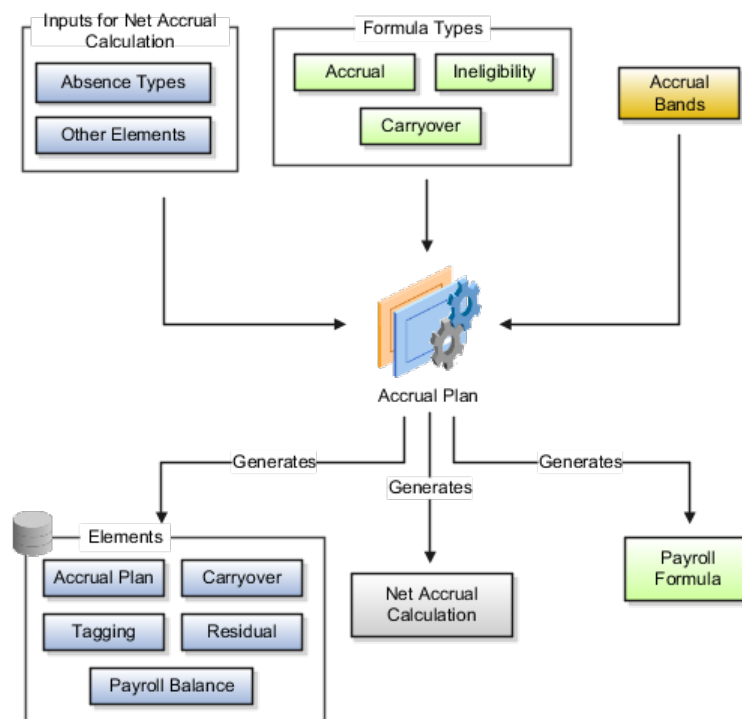
### How can I start a decreasing absence balance?

Enter a negative value for the absence element when you are creating entries in batches. For example, if you enter -16 hours, a decreasing balance starts at 16 hours.

## Manage Accrual Plans

### Accrual Plan Components: How They Work Together

Accrual plans are based on elements, formulas, accrual bands, and net accrual calculation rules. You can configure all of these to reflect the plan policies of your enterprise.



## Absence Types

You can associate multiple absence types with an accrual plan. Recording absences of these types reduce the net accrual of an employee enrolled in the accrual plan.

## Other Elements

You can include other elements to add to or subtract from the gross accrual in the net accrual calculation; for example, accrued time that is bought or sold, or time that you may have transferred from an accrual plan that the employee was previously enrolled in.

## Accrual Bands

You use accrual bands to define accrual benefits, such as maximum accrual per accrual term, maximum carryover, and ceiling.

## Formula Types

The following table explains the role of formula types in accrual plans.

Formula Type	Role
Accrual	Calculates gross accrued time to date.
Accrual Carryover	Used by the Calculate Carry-Over process to calculate the accrued time an employee can carry over to the next accrual term, when it is effective from, and when it expires.
Accrual Ineligibility	Checks whether an employee is eligible to use accrued time on the effective date of an absence entry. You associate this formula with the accrual plan only if you plan to enter absences using the Generic Batch Loader spreadsheet.
Payroll formula (only for Oracle Fusion Global Payroll users using a payroll balance)	Runs the accrual formula during a payroll process and returns the gross accrual amount to the payroll balance element, which feeds the payroll balance. The formula is generated when you create the accrual plan.

## Elements

The following table explains the role of elements that the accrual plan generates.

Element	Role
Accrual plan	Use to enroll employees in the accrual plan. This element represents the accrual plan and has the same name.
Carry-Over	Used by the Calculate Carry-Over process to store unused time at the end of the accrual term that must carry over to the next accrual term.
Residual	Used by the Calculate Carry-Over process to store unused leaves that cannot be carried over to the next accrual term.

Tagging (only for Oracle Fusion Global Payroll users)	Used by the payroll run to track retrospective absences to include in the net accrual calculation. You can also use this element to track entries of other elements you included in the accrual plan.
Payroll balance (only for Oracle Fusion Global Payroll users using a payroll balance)	Used by the payroll run to feed the payroll balance that stores gross accruals.

## Accrual Plan Rules: Points to Consider

You can specify the following accrual plan rules on the Accrual Plan page in accordance with the leave policy of your enterprise:

- Accrual start rule
- Accrual term and frequency
- Ineligibility period
- Gross accrual maintenance
- Accrual bands
- Net accrual calculation rules

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### Note

If you do not specify values for any of the above plan rules, the accrual plan uses the default values in the associated accrual formula.

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### Accrual Start Rule

You use an accrual start rule to determine when newly enrolled employees start to accrue time. For example, some accrual plans allow new hires to accrue time from the date of their hire. If the predefined start rules that are available on the **Accrual Plan** page do not meet your requirements, you can add your own rule directly in the accrual formula.

### Accrual Term and Frequency

You can specify the type of the accrual term and its length during which employees accrue time. For example, you can define an accrual term of one calendar year that restarts on January 1, or on the employee's annual hire date. You define the frequency at which employees accrue time during an accrual period, for example, two days every pay period, or two days every month.

### Ineligibility Period

You can define a period, such as six months from the date of hire in which newly hired employees accrue time, but not use it until the end of the period. Although you can define the ineligibility period in the **Accrual Plan** page, if you have more complex rules to incorporate, you can include those rules in the accrual formula.

## Gross Accrual Maintenance

Oracle Fusion Global Payroll users can choose to store gross accruals in a payroll balance. The advantage is that the gross accruals are calculated since the last payroll run, and not for the entire accrual term, thus reducing the number of calculations.

## Accrual Bands

Use accrual bands to define accrual benefits for employees. You can create as many bands as you require.

## Net Entitlement Rules

The accrual plan generates the net accrual calculation for enrolled employees. By default, the absence types that you associate with the accrual plan appear as deductions in the calculation. However, you can include other elements to customize the calculation.

## Accrual Start Date for New Hires: How It Is Calculated

By default, the payroll accrual formulas (Accrual Payroll Calculation formula and Accrual Payroll Balance Calculation formula) start the accrual from January 1, and the simple accrual formulas (Accrual Simple Multiplier and Accrual Simple Balance Multiplier), from June 1.

## Settings That Affect Accrual Start Date

The formula uses the start rule you specified for the accrual plan in the Accrual Plan page.

## How the Start Rules Are Interpreted

On the basis of the start rule, the formula calculates the start date from the employee's hire date and compares it with the plan enrollment date. Accrual begins on whichever of these two dates is later.

The following table describes how the formula interprets each start rule.

Start Rule	How the Formula Interprets It
Hire Date	<p>Accruals begin from the first full pay period following the hire date. If the hire date is on the first day of the pay period, the participant starts to accrue time as of that date.</p> <p>For example, if the hire date of a participant on a monthly payroll falls on January 10, 2011, and the pay period starts on the first of every month, accruals start on February 1, 2011. If the hire date falls on January 1, 2011, then the participant starts to accrue time on the same day.</p>

Beginning of calendar year	<p>Accruals begin from the start of the year following the year of hire.</p> <p>For example, a participant with a hire date of January 1, 2011 starts to accrue time from January 1, 2012.</p>
Six months after hire	<p>Accruals begin from the first full pay period after the six-month anniversary of the hire date. If the six-month anniversary falls on the first day of the pay period, the participant starts to accrue time as of that date.</p> <p>For example, a participant on a semi-monthly payroll who is hired on 9 February, 2011 completes six months service on 9 August, 2011. The participant starts to accrue time on the first day of the second pay period in August. If the hire date was on 1 February, 2011, the participant starts to accrue time on the first day of the first pay period in August.</p> <p>The period of ineligibility does not apply to accrual plans using this start rule.</p>

## Changing Start Rules

There are two ways to change the start rules:

- You can enter additional start rules as values for the `ACCRUAL_START_TYPE` lookup type, which provides a list of values for the Accrual Start field. You must add a statement to your copy of the predefined formula to calculate the accrual start date using your new start rule.
- You can ignore the Accrual Start field and calculate the start date entirely within the formula. To do this, copy the predefined formula and replace the section that calculates the accrual start date with your own formula statements.

## Length of Service: How It Is Calculated for Accrual Bands and Ineligibility Periods

If you have configured your accrual plan to use length-of-service accrual bands, or an ineligibility period, the predefined accrual formula contains statements to automatically determine the employee's length of service.

## Setting That Affects Length of Service Calculation

For individual accrual plan participants, you can enter a continuous service date when enrolling a participant in a plan to override the default date from which a plan starts its length of service calculations. For example, you enter a continuous service date if employees who already have accumulated periods of service in your enterprise transfer from one place to another.

## How Length of Service Is Calculated

The predefined accrual formula calculates the length of service from the first day of the month of an employee's hire date. For example, an employee hired on January 14, 2010, completes one year of service on January 1, 2011, and an employee hired on December 31, 2010, completes one year of service on December 1, 2011.

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### Note

The default length of service start date (or the overriding continuous service date) is not the same as the accrual start date, which is determined by the accrual start rules selected on the Accrual Plan page or set within the accrual formula.

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## Accrual Term Type: Critical Choices

When you create an accrual plan using the Accrual Plan page, you must select one of the following options to determine the accrual term start date and duration:

- Hire date
- Rolling
- Simple

### Hire Date

The accrual term starts on the hire date and restarts on each anniversary. For example, if the enrolled employee's hire date is January 1, 2011, the accrual term starts on this date and restarts on January 1, 2012. The start date is not affected by the entry of a continuous service date when the employee enrolls in the accrual plan. Although the continuous service date affects length-of-service calculations (for accrual bands and ineligibility period calculations), it does not affect the accrual term.

### Rolling

An accrual term of this type has a duration of one calendar year, but does not have a fixed start date. Accruals are always calculated for the previous twelve months. Carryover is not relevant because the accrual term never ends, but rolls forward. Employees lose the accrued time if they do not use it within twelve months.

### Simple

If you choose the simple option, you must specify the length of the term and the date when the accrual term must start.

## Accrual Ineligibility Period: Critical Choices

You can set up accrual plans that require participants to work for a period of time before they are eligible to take leave. Participants accrue time at the usual

rate during this period, but the time does not add to their net accrual until the period of ineligibility expires. Also, the predefined formulas do not carry over the accrued time to the next accrual term if the end of the current accrual term falls within the ineligibility period. You can specify the ineligibility period in the following locations:

- Accrual Plan page
- Accrual formula
- Accrual Ineligibility Formula

### **Specifying in the Accrual Plan Page**

The accrual formula uses the period you specify in the net accrual calculations. The predefined accrual formula calculates the ineligibility period from the continuous service date (if it was entered on the accrual plan element entry) or from the hire date.

### **Specifying in the Accrual Formula**

If you have a more complex rule (for example, you want to use a user table to determine an employee's ineligibility period on the basis of grade), you can include the rules directly in the accrual formula.

### **Specifying in the Ineligibility Formula**

If you plan to use the generic batch loader to upload absence records, and you want the batch loader to check the ineligibility rules for the absences, you must include the rules in the ineligibility formula and associate it to the accrual plan. You can use the predefined formula as a starting point.

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#### **Note**

If your enterprise policy requires you to record individual absences as well as upload absences in batches, ensure that the ineligibility rules in the accrual formula and the ineligibility formula are the same for consistent results.

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## **Accrual Bands: Explained**

You can use accrual bands in your accrual plan to include plan rules that increase accrual benefits for participants on the basis of their length of service, job, grade, or number of hours worked.

Each accrual band comprises the following aspects:

- Employee coverage rules
- Accrual benefits

### **Employee Coverage Rules**

The predefined length-of-service range type defines accrual bands for varying lengths of service. For example, you can create an accrual band for employees

who have completed 0 through 2 years of service, and another band, for employees who have completed over 3 years of service. The predefined accrual formula, by default, contains calculations to determine the accrual band for an employee on the basis of length-of-service bands that you defined in the **Accrual Plan** page. Alternatively, you can modify the formula to use bands on the basis of other factors, such as grade, or job.

To create accrual bands based on two types of employment criteria, use band groups. For example you could create band groups for jurisdictions and create different length of service bands within each group.

### Accrual Benefits

You can provide values to the following accrual benefits for each accrual band:

- Amount of time an employee accrues per accrual term
- Maximum time that an employee can carry forward to the next accrual term
- Maximum accrued time that an employee can hold at any time

## Accrual Bands: Examples

Accrual bands enable you to vary accrual benefits to employees on the basis of employment criteria, such as length of service or grade. The following examples illustrate the different ways in which you can use accrual bands.

### Creating Accrual Bands Using Predefined Band Criteria

You can create an accrual band (in the **Accrual Plan** page) for employees who have, for example, completed 1 through 5 years of service, and another for employees who have completed over 6 years of service, as shown in the following table.

Range Type (Length of Service)	Annual Rate	Maximum Carryover	Ceiling
1 through 5	15	15	45
6 through 99	20	15	60

### Creating Accrual Bands Using Other Band Criteria

If you want to determine the accrual band on the basis of other employment criteria, such as grade, you must add a lookup value to the PER\_ACCRUAL\_BAND\_RANGE lookup type, create grade-based bands in the accrual plan pages, and modify the accrual formula so that the required employment information (for example, the employee's grade) is available by way of a database item or a function for accrual band calculations. The following table lists sample grade-based accrual bands.:

Range Type (Grade)	Annual Rate	Maximum Carryover	Ceiling
A.1 through A.4	15	15	45



B.1 through B.2	10	15	30
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### Using a Band Group in Accrual Bands

You may want to, for example, create accrual bands of varying lengths of service for employees who belong to specific geographic locations. In this case, you must add the location band group as a lookup value to the PER\_ACCRUAL\_BAND\_GROUP lookup type, create accrual bands using that band group in the **Accrual Plan** page, and modify the accrual formula so that the required employment information is available by way of a database item or a function for accrual band calculations. The following table lists accrual bands that are grouped by the location band group.

Band Group (Location)	Range Type (Length of Service)	Annual Rate	Maximum Carryover	Ceiling
Paris	1 through 5	15	15	45
	6 through 10	20	15	60
Tokyo	1 through 3	10	10	30
	4 through 5	15	15	45

### Creating Date-Effective Accrual Bands

Assume that your enterprise wants to change its leave policies every year in accordance with government regulations. In this case, ignore the **Accrual Bands** region in the **Accrual Plan** page, and instead, navigate to the **Manage User Tables** page to create date effective rows to hold the accrual band information. Include the GET\_TABLE\_VALUE function in your accrual and carryover formulas to access the accrual band that is effective on the date of the accrual calculations. Here is a sample user table that contains date-effective accrual bands.

Effective Date	Range Type (Length of Service)	Annual Rate	Maximum Carryover	Ceiling
1 April, 2010	1 through 5	15	15	45
	6 through 10	20	15	60
1 April, 2011	1 through 5	10	15	30
	6 through 10	15	15	45

## Gross Accruals: How Payroll Runs Can Maintain Them

If you use Oracle Fusion Global Payroll, you can set up your accrual plan to use a payroll balance to store gross accruals. The advantage is that the gross accruals are calculated since the last payroll run, and not for the entire accrual term, thus reducing the number of calculations, especially when you use batch processes such as Check Writer to calculate accruals for each assignment. The Accrual Payroll Balance Calculation formula and the Accrual Simple Balance Multiplier formula support payroll balances.

## Settings That Affect Gross Accruals Stored in a Balance

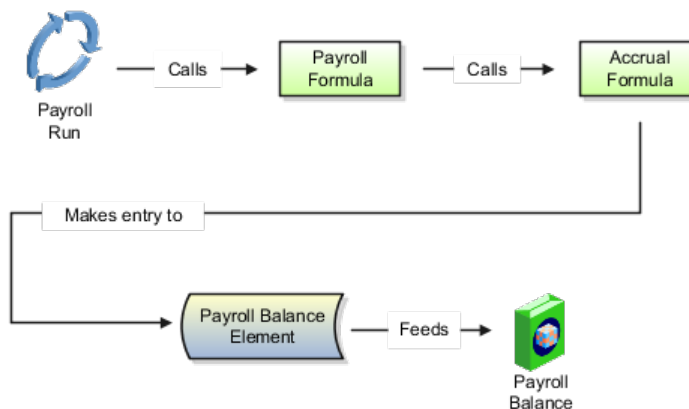
The payroll balance reset date that you must specify when you create an accrual plan determines the period of time over which the balance accumulates before it resets to zero. You can select any of the following predefined dates on which the balance must reset to zero every calendar year.

Reset Date	Description
January 1	Balance resets on January 1 every calendar year or on the start date of the first payroll period of the year that contains this date.
June 1	Balance resets on June 1 every calendar year or at the end of the payroll period that contains this date.
Hire date	Balance resets on the anniversary of the employee's hire date or on the start date of the payroll period that contains this date.

A balance dimension is automatically selected when you choose a predefined reset date. If you want the payroll balance to accumulate over a different period of time, or reset on a different date, you can create your own dimension and select it when you create the accrual plan.

## How the Balance Is Maintained

The components required to maintain an accrual balance (payroll formula, payroll balance, and the payroll balance element) are generated automatically, so no additional setup is required. The following figure illustrates how the payroll run maintains gross accruals in a balance:



When the payroll run processes an accrual plan element entry, it calls a payroll formula associated with the accrual plan element. This formula passes the following information to the accrual formula that calculates the gross accrual:

- Name of the database item of the payroll balance for the accrual formula to retrieve the number of days or hours currently in the payroll balance.
- Date to begin calculating new accruals, which is the day after the Date Paid of the last payroll period in which the assignment was processed.

- Calculation date, which is the date paid of the current payroll run.

The accrual formula returns the new gross accrual to an element that feeds the balance.

---

#### Note

The payroll formula, the payroll balance, the element that feeds the balance, and element eligibility are generated automatically when you save the accrual plan.

---

If the accrual formula finds retrospective absences or other assignment changes that affect the net accrual, it recalculates accruals for the whole accrual term and updates the gross accrual balance.

For example, assume that an accrual plan starts at the beginning of the calendar year, and has a ceiling of 10 days, and 2 days accrual per month. The employee has a net accrual of 10 at the end of May. The June payroll run does not award any new accrual to this employee because the net accrual must not exceed the ceiling. However, in July, the employee records 5 days vacation in May, retrospectively. The July payroll run recalculates the accrual and updates the gross accrual balance to 14. The net accrual is now 9 (14 minus 5).

## Net Accrual: How It Is Calculated

The net leave accrual for employees is calculated when they review their accrual balances. The accrual formula that calculates the net accrual uses the net calculation rules that you defined in the **Accrual Plan** page for the calculation.

## Settings That Affect Net Accrual

The net calculation rule in the accrual plan indicates the element entries that must add to or subtract from the gross accrual to calculate the net accrual.

## How Net Accrual Is Calculated

The accrual formula uses the following calculation to determine an employee's net accrual:

Net Accrual = (Gross accrual + Carried over time) - Absences (+/-) Other elements

The following table describes the variables used in the calculation:

Variable	Description	Source
Gross accrual	Sum of accruals to date in the current accrual term	Calculated by Accrual formula
Carried over time	Hours or days carried over from the previous accrual term	Obtained from the plan's carryover element
Absences	Confirmed absences in the current accrual term recorded up to the effective date.	Obtained from the absence element entries to the plan's absence types.

Other elements	Elements (for example, leaves that are bought or sold) that you want to add or subtract from the gross accrual	Obtained from the net calculation rules in the Accrual Plan page.
----------------	--	---

---

#### Note

You cannot change the predefined calculation rules for carried over time and absences.

---

## Changing the Net Accrual Calculation: Examples

When you create an accrual plan, the default net accrual calculation takes into account absences (belonging to the absence types you associated with the accrual plan) and any carried over leaves from the previous accrual term. While you cannot change these predefined rules, you can add rules to take into account other values that you want to add to or subtract from the gross accrual.

### Sold or Purchased Time

You may want to provide employees the benefit of selling back time that they accrued, but could not use it to take leave during the accrual term. For this purpose, you can define and link an element to store this amount. Ensure that the element is a nonrecurring one, belongs to the Information classification, and contains input values to store the duration (with the same units as you selected for the accrual plan), and the effective date. In the Accrual Plan page, associate this element to the accrual plan as a deduction (use the Subtract option) in the net calculation rules.

The above example also applies to the scenario where you want employees to be able to buy additional time. In the Accrual Plan page, you associate the element that stores this amount as an addition in the net calculation rules.

### Carried Over Time

Under certain circumstances, apart from the time that employees carry over each accrual term, you may want to allow employees to carry over some amount of time for several plan terms and not subject the time to the usual expiry date. For this purpose, after running the Calculate Carryover process, store the time in a nonrecurring information element (apart from the Carryover element). In the Accrual plan page, add this element as an addition in the Accrual plan page.

### Accruals from Other Plans

If you want to consider unused time from another plan when the employee enrolls into the current accrual plan, store the unused time in a nonrecurring information element and associate that element as an addition in the Accrual Plan page.

## Leave Liability Calculation: Points to Consider

Leave liability is the total monetary value of the employee's unused leave time in the current accrual term. You can change the leave liability calculation to suit your enterprise requirements.

## Using the Default Leave Liability Calculation

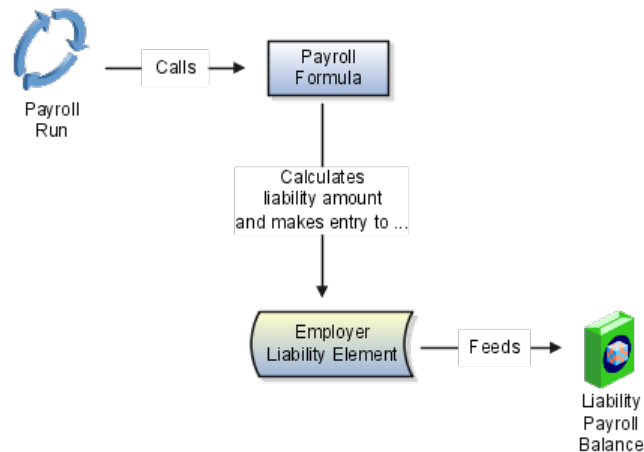
To determine the liability amount, which appears on the Manager Resources dashboard, the net accrual is automatically multiplied by the employee's pay rate. The following lines in the accrual formula determine the pay rate.

```
.  
. .  
.  
E = GET_ASSIGNMENT_SALARY()  
accrual_units = ACP_UNITS  
Currency_Code = get_text('ASG_SALARY_CURRENCY_CODE')  
IF (accrual_units = 'H') THEN  
(  
  Pay_Rate_Per_Unit = get_number('ASG_SALARY_HOUR_PAY')  
)  
ELSE  
(  
  Pay_Rate_Per_Unit = get_number('ASG_SALARY_DAY_PAY')  
)
```

## Maintaining a Consolidated Leave Liability Balance for All Employees

To consolidate the liability amounts for all employees for accounting purposes, you create a payroll balance that stores the aggregate amount and include the liability amount calculation in the payroll formula that the accrual plan generates. When you run the payroll, the payroll formula calculates the liability amount and adds it to the payroll balance.

The following figure shows how the payroll run maintains the leave liability amount in a payroll balance.



Ensure that you create the Employer Liability element and the Liability payroll balance. The pay value of the employer liability element must feed the payroll balance. For the accrual plan element, you must create a result rule that passes the Current Liability Increment formula result value to the pay value of the Employer Liability element. The payroll formula must return the Current Liability Increment value as a result of the liability calculation, as shown in the following example.

```
DEFAULT FOR ACP_ACCRUAL_PLAN_ID is 0  
DEFAULT FOR ACP_PAYROLL_START_DATE is '4712/12/31 00:00:00' (date)  
DEFAULT FOR ACP_PAYROLL_CALCULATION_DATE is '4712/12/31 00:00:00' (date)
```

```

/* XXXXXXXXXX is automatically substituted with the liability balance
dimension that you create. */
DEFAULT FOR XXXXXXXXXX is 0

/* START OF ACCRUAL CALCULATIONS */
.
.
.

/* Calculate pay rate */

E= GET_ASSIGNMENT_SALARY()
accrual_units = ACP_UNITS
Currency_Code = get_text('ASG_SALARY_CURRENCY_CODE')

IF (accrual_units = 'H') THEN
(
  Pay_Rate_Per_Unit = get_number('ASG_SALARY_HOUR_PAY')
)
ELSE
(
  Pay_Rate_Per_Unit = get_number('ASG_SALARY_DAY_PAY')
)

.
.
.

/* Calculate the liability amount on the basis of the pay rate. */

Current_Liability_Increment =
((PLAN_BALANCE_ASG_LEAVE_YTD + Total_Accrued_Amt) * Pay_Rate_Per_Unit) -
LEAVE_LIABILITY_BALANCE_ASG_YTD
*/

/* For liability calculation, the return statement should include the
Current Liability Increment value: */

RETURN Total_Accrued_Amt, Current_Liability_Increment

```

## Creating an Accrual Plan: Worked Example

This example demonstrates how to create an accrual plan to conform to a specific leave policy of an enterprise.

The following table summarizes key decisions for this scenario:

Decisions to Consider	In This Example
Who is eligible for the vacation accrual plan?	All employees
Which accrual category must the accrual plan belong to for reporting purposes?	Vacation
When must the accrual term start?	12 months from hire date
When must newly hired employees enroll in the accrual plan?	On their hire date
How frequently do regular and part-time employees accrue time?	2 days per month (prorated for part-time employees)
How many leaves can employees carry over to the next accrual term?	Employees of grades 1, 2, and 3 can carry forward a maximum of 15 days to the next accrual term. Employees of grades 4 and 5 can carry forward a maximum of 10 days to the next accrual term.

When must the carried over leave expire?	At the end of 1 year
What is the maximum number of leaves that employees can accrue?	45 days
Which accrual formula must the accrual plan use?	Accrual Simple Multiplier

Use the Manage Elements page to create an absence element to store absences taken by employees, and define eligibility criteria. Create the absence type on the Manage Absence Types page and link the absence element you created. Modify the accrual formula using the Manage Fast Formula page to include statements to calculate accrual amounts and ceilings for both part-time and full-time employees. Use the Manage Common Lookups page to create a Grades lookup value so that you can define accrual bands for varying grade ranges.

Create the accrual plan on the Manage Accrual Plans page. In this example, use this page to specify the length and type of the accrual term, the date when new employees start to accrue leave, and accrual bands that determine the accrual amounts for different grades.

## Creating an Element, Eligibility Criteria, and Absence Type

1. On the Manage Elements page, create an absence element called Vacation. Create the element in the Absence classification to ensure that its entries do not generate payments. Select the **Nonrecurring** option so that the payroll run processes the entire absence duration in the pay period in which the absence starts.
2. On the Earnings Summary page, create an input value for the Vacation absence element to store the duration of the absence in days. Right-click **Element Eligibility**, and select the **Standard Link** option so that all employees receive the element.
3. On the Manage Absence Types page, create an absence type called Vacation and link to it the Vacation absence element that you created.

## Modifying Lookup Types

1. Navigate to the Manage Common Lookups page.
2. Search for the PER\_ACCRUAL\_BAND\_RANGE lookup type, and create a lookup value called Grades.
3. Search for the PER\_ACCRUAL\_CATEGORY lookup type and create a lookup value called Vacation Leave.

## Creating a User Table to Determine Ineligibility Periods

1. On the Manage User Tables page, create a user table to maintain ineligibility periods according to grade. Use the following model to create the user table.

Grade	Ineligibility Period
1 through 3	2 months
4 through 5	3 months

2. Click **Submit**.

## Modifying the Accrual Formula

1. On the Manage Fast Formulas page, make a copy of the Accrual Simple Multiplier formula. You can use the same name as the predefined formula, but ensure that you save it in the legislative data group that you created your absence type in.
2. In the formula section that contains statements to calculate the accrual amount per period, change the calculation so that it is on the basis of the employee's FTE (full time equivalent). Define a database item for the FTE so that you can use it to calculate the accrual amount.

```
.  
.   
.   
Accrual_Rate = ROUND(Term_Accrual_Rate / No_Of_Periods,2) * <<database  
item to retrieve employee's FTE>>
```

3. Define a database item or a formula function to retrieve the employee's grade. In the section of the formula that deals with retrieving accrual band information, replace the existing statements with new statements that retrieve band information on the basis of the employee's grade:

```
.  
.   
.   
Emp_grade = <<database item to retrieve employee grade>>  
  
IF (GET_ACCRUAL_BAND('NN',Emp_grade) = 0) THEN  
(  
  Accrual_Band_Id = GET_NUMBER('ACCRUAL_BAND_ID')  
  Max_Carryover = GET_NUMBER('MAX_CARRY_OVER')  
  Term_Accrual_Rate = GET_NUMBER('TERM_ACCRUAL_RATE')  
  Ceiling_Amt = GET_NUMBER('CEILING')  
)  
.   
.   
.
```

4. Click **Submit**.

## Creating the Accrual Plan

1. Navigate to the Manage Accrual Plans page.
2. On the Manage Accrual Plans page, click **Create**.
3. On the Create Accrual plan page and subsequent pages, complete the fields, as shown in this table.

Field	Value
Accrual Plan Name	Vacation Leave Plan
Accrual Category	Vacation Leave



<b>Accrual Start</b>	Hire date
<b>Accrual Units</b>	Days
<b>Absence Type</b>	Vacation
<b>Accrual Term Type</b>	Hire date anniversary
<b>Accrual Frequency</b>	Standard, 1 month
<b>Period of Carryover Expiry</b>	1 year
<b>Accrual Formula</b>	Accrual Simple Multiplier
<b>Carryover Formula</b>	Accrual Simple Carryover
<b>Band Range</b>	Grade

4. In the Accrual Bands region, complete the fields, as shown in this table.

Grade	Annual Rate	Ceiling	Maximum Carryover
1 through 3	24	45	15
4 through 5	24	45	10

5. Click **Submit**.

## Formulas for Accrual Plans

### Accrual Formulas: Critical Choices

The accrual formula calculates the gross accrual on the basis of time that employees accrue in each accrual period. The type of accrual formula that you want to associate with your accrual plan depends on how you want to implement the following plan rules:

- Type of accrual period
- Gross accrual maintenance

Use the following table to decide which formula to select for your accrual plan. For example, if you want your employees to accrue time per payroll period and you want to maintain gross accruals using a payroll balance, you must base your formula on the Accrual Payroll Balance Calculation formula.

Plan Rule Implementation	Accrual Payroll Calculation Formula	Accrual Payroll Balance Calculation Formula	Accrual Simple Multiplier Formula	Accrual Simple Balance Multiplier Formula
Accruals per payroll period	Yes	Yes	No	No
Accruals per calendar period, such as month	No	No	Yes	Yes
Gross accrual maintenance using payroll balance	No	Yes	No	Yes

---

## Note

The Accrual Payroll Calculation formula and the Accrual Simple Multiplier formula incorporate the same rules as the accrual formulas that use balances, except that they cannot be called from the payroll run to maintain a balance of gross accruals.

---

## Accrual Formulas That Support Payroll Balances

Use the following table to compare the differences in the default calculation methods of the Accrual Payroll Balance Calculation formula and the Accrual Simple Balance Multiplier formula. You can also use the table to check if you can change a particular plan rule on the Accrual Plan page

Plan Rule	Default Calculation Method (Accrual Payroll Balance Calculation)	Default Calculation Method (Accrual Simple Balance Multiplier)	Changeable on Accrual Plan Page
Length of accrual term	One year.	One year.	Yes
Accrual term start date	January 1.  Accrual calculations restart at the beginning of each calendar year.	June 1.  Accrual calculations restart at the beginning of each June.	Yes
Accrual frequency	On the basis of the enrolled employee's pay periods.  For example, employees on a monthly payroll accrue time on the last day of their pay period, independently of payroll runs.	Monthly.	Yes, if you select <b>Simple</b> as the accrual frequency type.
Accrual amount	2 days per pay period.	2 days per month.	Yes
Ceiling	20 days.	20 days.	Yes
Maximum carryover	20 days.	20 days.	Yes
Length of service calculation (for accrual bands and ineligibility period)	Uses continuous service date (if present) or hire date.	Uses continuous service date (if present) or hire date.	No, but you can enter the continuous service date in the accrual plan element using the <b>Manage Element Entries</b> page.
Accrual start date for new hires	Based on start rules that you can select when you create the accrual plan.	Based on start rules that you can select when you create the accrual plan.	Yes
Period of ineligibility	Based on the period that you can define in the Accrual Plan page. Accrued time is not credited to the employee until the end of the ineligibility period.	Based on the period that you can define in the Accrual Plan page. Accrued time is not credited to the employee until the end of the ineligibility period.	Yes

Effective dates of carried-over time	<p>Sets the effective start date to December 31 of the accrual term year that was processed by the Calculate Carry-Over process. Carried-over time expires a year later.</p> <p>For example, the carried-over time with the effective start date December 31, 2010 expires on December 31, 2011.</p>	<p>Sets the effective start date to May 31 of the accrual term year that was processed by the Calculate Carry-Over process. Carried-over time expires a year later.</p> <p>For example, the carried-over time with the effective start date May 31, 2010 expires on May 31, 2011.</p>	Yes. The Calculate Carry-Over process calculates the effective dates according to the carryover expiry duration that you specify.
Calculation of gross accruals	<p>Sums accruals in all full pay periods that end on or before the calculation date in the current accrual term.</p> <p>The formula also considers in its calculation any employee termination date, and changes in assignment status.</p>	<p>Sums accruals in all full months that end on or before the calculation date in the current accrual term.</p> <p>The formula also considers in its calculation the employee termination date (if present).</p>	No
Calculation of gross accruals for suspended assignments	<p>Calculates the number of active working days of the assignment in the payroll period, multiplies the normal accrual rate by the number of active days, and divides it by the number of total working days, to prorate the accrual.</p>	Does not process changes in assignment status	No

## Turning Accrual Plan Rules Into Formula Statements: Examples

Although you can incorporate accrual plan rules from the Manage Accrual Plans page, you can incorporate more complex rules in the accrual formula directly. Use these examples to incorporate your plan rules into the Accrual Simple Multiplier formula.

---

### Caution

Before modifying a predefined formula, you must copy it first and then modify the copy.

---

### Defining Additional Start Rules for New Hires

If you want to use an accrual start rule other than the predefined ones, you must first define the new rule as a value for the PER\_ACCRUAL\_START\_RULE lookup type. Then modify the formula section that determines the accrual start rule on the basis of the following sample statements:

```

.
.
.
ELSE IF (ACP_START_RULE = <your new lookup value>) THEN
(
  First_Eligible_To_Accrue_Date = <your new calculation to determine the
  start date>
)

```

## Defining a Different Rule to Determine Accrual Rate

To determine the accrual rate, the predefined formula by default considers the amount of time that an employee must accrue in the accrual term and the number of accrual periods, both of which you can define on the Accrual Plan page. You can override the default calculation. In the following example, part-time employees accrue 3 hours for every 75 hours worked:

```
Accrual_Rate = ACP_HOURS_WORKED / 75
```

In the above statement, ACP\_HOURS\_WORKED is a database item that you must add to the accrual plan element input value that contains the number of hours worked by the enrolled employee.

## Defining Accrual Amounts in Advance

The accrual amount that you define on the **Accrual Plan** page enables enrolled employees to accrue time each period. If, for example, you want employees to accrue their full entitlement of 20 days at the start of every calendar year, use the following basic formula:

```

INPUTS ARE
Calculation_Date (date)

Accrued_amt = 20

Effective_start_date = to_date('0101' || to_char(calculation_date,
'YYYY'), 'DDMMYYYY')
Effective_end_date = to_date('3112' || to_char(calculation_date,
'YYYY'), 'DDMMYYYY')
Accrual_end_date = to_date('0101' || to_char(calculation_date,
'YYYY'), 'DDMMYYYY')

RETURN Accrued_amt,
       Effective_start_date,
       Effective_end_date,
       Accrual_end_date

```

---

### Note

The above formula does not contain ineligibility rules or start rules, and does not calculate the accrual for part years (for example, for employees joining the plan midway through a year).

---

## Using a Different Database Item for Continuous Service Date

The predefined formula uses the continuous service date (if it was entered for the enrolled employee) to determine when a newly hired employee begins to accrue time. The formula uses the ACP\_CONTINUOUS\_SERVICE\_DATE database item for this purpose. If you are using a different database item for the continuous service date, then replace the database item used in the following formula lines with the new database item:

```
IF (ACP_CONTINUOUS_SERVICE_DATE WAS DEFAULTED) THEN
```

```

(
    Continuous_Service_Date = ACP_HIRE_DATE
)
ELSE IF(ACP_CONTINUOUS_SERVICE_DATE > Calculation_Period_SD) THEN
(
    Total_Accrued_Amt = 0
    Continuous_Service_Date = ACP_CONTINUOUS_SERVICE_DATE
)
ELSE
(
    Continuous_Service_Date = ACP_CONTINUOUS_SERVICE_DATE
)
.
.
.
IF Continuous_Service_date = ACP_CONTINUOUS_SERVICE_DATE THEN
(
    Actual_Accrual_Start_Date = Continuous_service_Date
)

```

### Adding Rules for Suspended Assignments

If you want employees to accrue no time (or accrue time differently) while on certain types of leave, such as maternity leave or study leave, use the GET\_ASG\_INACTIVE\_DAYS function to check the status of the assignment, and include the appropriate rules. In the following example, employees do not accrue time while their assignment is inactive:

```

Assignment_Inactive_Days = GET_ASG_INACTIVE_DAYS(Period_SD, Period_ED)
IF Assignment_Inactive_Days <> 0 THEN
(
    Working_Days = GET_WORKING_DAYS(period_SD, Period_ED)
    IF Working_Days = Assignment_Inactive_Days THEN
    (
        Multiplier = 0
    )
    ELSE
    (
        Multiplier = 1 - (Assignment_Inactive_Days / Working_Days)
    )
)

```

## Custom Accrual Formulas: Points to Consider

If you decide to customize the predefined accrual plan formulas, you can incorporate your own plan rules, using functions and database items to access extra inputs. However, there are constraints on what you can change in the formulas.

### Using Predefined Formulas

You must take a copy of any predefined formula that you want to use and associate the copy with your accrual plan. This approach enables you to refer to the predefined formula if the changes you make to your own formula do not work to your expectations.

### Using Extra Inputs

Use the predefined accrual formula functions and database items to access extra inputs for calculations in your custom accrual plan formulas. You can define and register any additional functions you require to incorporate your plan

rules. However, your formula must use the same input statements and return statements that exist in the predefined formula.

## Incorporating Accrual Calculations

The predefined accrual formulas contain calculations to ensure that the employee is entitled to accrue time. Although you can include your own calculations in the custom formula, your formula must include the following calculations:

Calculation	Description
Termination date	Check whether there is a termination date for the assignment. If the termination date is before the calculation date, calculate the accrual as of the termination date. If your formula does not handle partial accrual periods, check whether the termination date is before the end of the first accrual period; if yes, set gross accrual to zero.
Enrollment end date	Check whether an end date exists for the assignment's enrollment in the plan. If the end date is before the calculation date, calculate the accrual as of the end date. If your formula does not handle partial accrual periods, check whether the enrollment end date is before the end of the first accrual period; if yes, set gross accrual to zero.
Calculation date	Check whether the calculation date is before the end of the first accrual period; if yes, set gross accrual to zero (unless your formula handles partial accrual periods).
Hire date	Check the employee's hire date or continuous service date. If your formula handles partial accrual periods, check that this date is before the calculation date, and if not, set the gross accrual to zero. If your formula does not handle partial periods, check that this date is before the start of the last full accrual period used in the current calculation. If the employee has not worked for a full accrual period before the calculation date, set the gross accrual to zero.
Start date for newly enrolled employees	Check when the employee must start to accrue time. This is typically the date of enrollment in the plan or, if your formula does not handle partial accrual periods, the first period starting on or after the date of enrollment in the plan. If this date (or period) is after the calculation date (or period), set the gross accrual to zero.
Ineligibility period	Check if an ineligibility period exists. Set the gross accrual to zero if the ineligibility period is still in force on either of these dates: <ul style="list-style-type: none"> <li>• Calculation date</li> <li>• End date of the last accrual period used in the calculation (if your formula does not handle partial accrual periods)</li> </ul>

Inactive assignments	Check whether the employee's assignment is active throughout the period for which you want to calculate accruals. Depending on your plan rules, your employees might not accrue time when their assignments are inactive, or they might accrue time at a reduced rate during this period. You can use the GET_ASG_INACTIVE_DAYS function to check the assignment status on each day from the start date to the end date of the period and return the number of inactive working days.
----------------------	---

## Accrual Carryover Formula Type

If you plan to write your own carryover formula for use with accrual plans, you must ensure that the formula uses the same input and return statements that exist in the predefined formula.

You can use functions and database items to access additional inputs. Contexts are available to the formulas automatically.

### *Input Variables*

The following table lists the input variables that you must use in your carryover formula.

Input Variable	Description
calculation_date	Any date within an accrual term
accrual_term	Method to calculate the time to carry over. Specify PREVIOUS as the value for this input if you want the formula to calculate carryover for the previous accrual term (before the calculation date). Specify CURRENT if you want the formula to calculate carryover for the accrual term that the calculation date spans.

### *Return Values*

The following table lists the return values that you must use in your carryover formula.

Return Value	Description
max_carryover	Amount of time the employee can carry over to the next accrual term.
effective_date	Last day of the accrual term for which the carryover is calculated
expiry_date (optional)	Date when the carryover expires if employees do not use it

## Accrual Formula Type

If you plan to write your own accrual formula for use with accrual plans, you must ensure that the formula uses the same input and return statements that exist in the predefined formula.

You can use functions and database items to access additional inputs. Contexts are available to the formulas automatically.

### ***Contexts***

Without using inputs or database items, you can directly access the following values for use with functions in formulas of type Accrual:

- PAYROLL\_ASSIGNMENT\_ID
- ACCRUAL\_PLAN\_ID
- LEGISLATIVE\_DATA\_GROUP\_ID
- PAYROLL\_ID

### ***Input Variables***

The following table lists the input variables that you must use in your accrual formula.

Input Variable	Description
Calculation_Date	Date through which you want to calculate the gross accrual
Accrual_Start_Date (only if you are using a payroll balance)	Date when accrual calculations must start. If this value is null, accrual calculations start from the beginning of the accrual term.
Accrual_Latest_Balance (only if you are using a payroll balance)	Latest accrual balance for the accrual term up to the day before the start of the accrual calculations (Accrual_Start_Date). A payroll balance stores the latest balance.

### ***Return Values***

The following table lists the return values that you must use in your accrual formula.

Return Value	Description
Enrollment_Start_Date	Date when the employee has enrolled in the accrual plan
Enrollment_End_Date	Date when the accrual plan enrollment expires
Continuous_Service_Date	The service date that was entered using an input value on the accrual plan element
Accrual_Start_Date	Start date of the accrual term. Depending on plan rules, this date may be the plan enrollment date, hire date, adjusted service date, or other date.
Accrual_End_Date	Date through which you want to calculate the gross accrued time. However, if the employee was terminated, this return value contains the termination date. If the employee has left the plan, this value contains the end date of the plan's element entry.
Accrual_Rate	Amount of time that the employee accrues per year. The value that is returned depends on accrual bands.
Ceiling_Amt	The maximum time that the employee can accrue. The value that is returned depends on accrual bands.



Max_Carryover	Maximum time that the employee can carry over to the next accrual term. The value that is returned depends on accrual bands.
Accrued_Amt	Gross accrued time for the current accrual term
Entitled_Amt	Net accrual for the current accrual term
Pay_Rate_Per_Unit	The monetary value of one unit of time that the employee has accrued
Currency_Code	The currency code used to express the monetary value of one unit of accrued time.

## Accrual Ineligibility Formula Type

If you plan to write your own ineligibility formula for use with accrual plans, you must ensure that the formulas use the same input and return statements that exist in the predefined formula

### *Input Variables*

You must specify as input the calculation date that indicates the effective date of the enrolled employee's accrual plan element entry.

### *Return Values*

You must specify the assignment\_eligible return value. The value will be set to Y (eligible) or N (ineligible).

## Accrual Plan Formula Functions

You can use the predefined accrual formula functions for calculations in your custom accrual plan formulas.

You can create and register any additional functions you require to incorporate your plan rules.

### ***CALCULATE\_PAYROLL\_PERIODS ( )***

The function uses the payroll id context. It calculates the number of payroll periods in one year for that payroll, and sets the global variable PAYROLL\_YEAR\_NUMBER\_OF\_PERIODS to that value.

For example, the function sets the global variable to 12 for a calendar month payroll.

### ***GET\_ABSENCE (calculation date, start date)***

Returns the total number of whole absences (having start and end dates) that an accrual plan covers between a date interval.

For example, the following formula statement returns the total number of absences that were taken between January 1, 2010 and 31 December, 2010.

```
TOTAL_ABSENCE = GET_ABSENCE ('01-JAN-2010'(date), '31-DEC-2010'(date))
```

### ***Parameters***

#### **Start Date**

Date when you want to start searching for absences.

#### **End Date**

Date up to which you want to search for absences.

***GET\_CARRY\_OVER (calculation date, start date)***

Returns the number of days or hours recorded on the carryover element entry with an effective date on or between the two input dates. If more than one element entry is effective between these dates, the function sums the hours or days.

Carryover element entries may also have an expiry date, after which any unused carryover time is lost. If the calculation date is after the expiry date, the function calculates the absences between the start date and the calculation date. If the total absence duration equals or exceeds the carryover, the function returns the total carryover because all of the time was used before it expired. If the total duration is less than the total carryover, the function returns the total duration of the absences taken before the carried over time expired. The rest of the carried over time is lost.

For example, if an employee carried over ten days, and takes six days of leave up to the expiry date, the function returns six. The employee loses the four days of carried over time remaining after the expiry date.

***GET\_NET\_ACCRUAL (calculation date, plan id, accrual start date, accrual latest balance)***

Returns the net accrual at the calculation date.

***Parameters***

**Calculation Date**

Date through which you want to calculate the net accrual.

**Plan ID**

Identifies the accrual plan to use to calculate the net accrual.

**Accrual Start Date**

Start date of the accrual term.

**Accrual Latest Balance**

Latest gross accrual stored in a payroll balance.

***RESET\_ACCRUALS ( )***

Returns a value (Y or N) that indicates whether the PTO\_RESET\_ACCRUALS pay action parameter was set.

***GET\_OTHER\_NET\_CONTRIBUTION (calculation date, start date)***

Returns between two dates the total amount of time stored in elements that you added to the net calculation on the Accrual Plan page. This calculation does not consider absence entries stored in the absence element or carried-over time stored in the carryover element.

***GET\_PAYROLL\_PERIOD (date)***

Determines the payroll period that spans the specified date and assigns values to the following global variables:

- PAYROLL\_PERIOD\_START\_DATE

- PAYROLL\_PERIOD\_END\_DATE
- PAYROLL\_PERIOD\_NUMBER

Use the GET\_DATE and GET\_NUMBER functions to retrieve the values from the global variables.

### ***GET\_ACCRUAL\_BAND (years\_of\_service)***

Determines the appropriate accrual band for the specified length of service of the employee. The function assigns values to the following global variables:

- ANNUAL\_RATE: Amount of time to accrue for the current accrual term at this band
- UPPER\_LIMIT: Length of service that the employee must complete for the next band to apply.
- CEILING

The following statements show how to use this function then use the GET\_NUMBER function to retrieve the values it sets in the global variables:

```
.
.
.
.
IF ( GET_ACCRUAL_BAND(Years_Service) = 0 THEN

Annual_Rate = GET_NUMBER('ANNUAL_RATE')
Upper_Limit = GET_NUMBER('UPPER_LIMIT')
Ceiling = GET_NUMBER('CEILING')

ELSE

( <your statements to include error processing> )

)
```

### ***GET\_ASSIGNMENT\_STATUS (date)***

Determines the status of an assignment at a given date. The function assigns values to the following global variables:

- ASSIGNMENT\_EFFECTIVE\_SD (effective start date of the assignment)
- ASSIGNMENT\_EFFECTIVE\_ED (effective end date of the assignment)
- ASSIGNMENT\_SYSTEM\_STATUS (status of the assignment)

For example, the following statement returns the status of the assignment on 01 January, 2011:

```
ERROR = GET_ASSIGNMENT_STATUS ('01-JAN-2011' (date))
```

### ***GET\_ASG\_INACTIVE\_DAYS (period start date, period end date)***

Returns the number of working days between the input dates when the assignment status was inactive.

### ***GET\_EARLIEST\_ASGCHANGE\_DATE (p\_legislative\_data\_group\_id, p\_pay\_assignment\_id, p\_event\_group, p\_start\_date, p\_end\_date, p\_recalc\_date)***

Returns the earliest date when changes to the assignment were first detected between two dates.

### ***Parameters***

#### **p\_legislative\_data\_group\_id**

The legislative data group ID of the assignment.

#### **p\_pay\_assignment\_id**

The assignment's pay assignment ID

#### **p\_event\_group**

The name of the event group that contains the events you want to track

#### **p\_start\_date**

Date when you want to start scanning for retrospective changes to the assignment

#### **p\_end\_date**

Date through which you want to scan for retrospective changes to the assignment

#### **p\_recalc\_date**

Date, normally today's date or the effective date you selected, on which you want to scan for retrospective events that may have occurred during the input dates.

### ***GET\_PERIOD\_DATES (base date, UOM, calculation date, number)***

Returns the start and end dates of the accrual period that spans the input date. The function assigns the start date to the PERIOD\_START\_DATE global variable, and the end date, to the PERIOD\_END\_DATE global variable.

For example, assume that an accrual plan was set up to allow employees to accrue time once in two months in a calendar year. The following usage of the GET\_PERIOD\_DATES function populates the PERIOD\_START\_DATE global variable with 1-MAR-2010, and the PERIOD\_END\_DATE global variable, with 30-APR-2010.

```
GET_PERIOD_DATES('1-JAN-2010', 'M', '15-APR-2010', 2)
```

If the calculation date is earlier than the base date, then the function calculates the accrual periods backwards from the base date.

### ***Parameters***

#### **Base Date**

Date to start calculating the accrual period dates from. Usually, this is the start date of the accrual term.

#### **Calculation Date**

Date for which you want to determine the accrual period that spans it.

#### **UOM**

Type of division that determines accrual periods. Valid units are D (days), M (months), W (weeks).

#### **Number**

***GET\_START\_DATE (accrual start date, start of accrual term)***

Returns the date when the accrual formula must start calculating accruals.

If you are using a payroll balance and there are retrospective absence entries that have not already been used in an accrual calculation, the function returns the earliest start date of these entries.

However, in the predefined formula, if any unprocessed retrospective element entries are found, the formula always calculates accruals from the beginning of the accrual term.

If you are not using a payroll balance, the function returns the start date of the accrual term.

***GET\_WORKING\_DAYS (start date, end date)***

Returns the number of working days between the input dates

***CALCULATE\_HOURS\_WORKED (p\_std\_hours, p\_std\_freq, p\_range\_start, p\_range\_end)***

Returns the number of working hours between two dates.

For example, assuming that the assignment works 40 hours per week, the following statement returns the number of working hours between 01 January, 2010 and 31 January, 2010:

E = CALCULATE\_HOURS\_WORKED (40, "Weekly", '01-Jan-2010', '31-Jan-2010')

The values that you can specify for the p\_std\_freq parameter are:

- Weekly
- Monthly
- Yearly

***PUT\_MESSAGE (expression)***

Adds a message for debugging purposes.

For example, use this function to generate a message from the accrual formula if an employee is not eligible to accrue time.

***GET\_ELEMENT\_ENTRY ( )***

Returns a value that indicates whether an assignment has enrolled in the accrual plan. the value 1 indicates that an element entry exists, and the value 0 indicates that no element entry exists.

***GET\_PAYROLL\_DETAILS (p\_payroll\_id, p\_date\_in\_period)***

Returns payroll details, such as the start date of the payroll period, the end date, and the number of the payroll period that spans the input date. The function accepts the following parameters:

- p\_payroll\_id: The ID of the payroll
- p\_date\_in\_period: The date for which you want to determine the payroll details

***Parameters***

**p\_payroll\_id**

The ID of the payroll

**p\_date\_in\_period**

The date for which you want to determine the payroll details

**GET\_PAYROLL\_DTRANGE (p\_payroll\_id)**

Returns the start and end dates of the specified payroll.

**GET\_PAYROLL\_ID (p\_pay\_assignment\_id, p\_payroll\_id, p\_date\_in\_period)**

Returns the effective payroll ID for an assignment on an input date.

**GET\_RETRO\_ELEMENT ( )**

Retrieves retrospective elements to be tagged as processed.

**GET\_TERMINATION\_DATE (p\_assignment\_id)**

Returns the termination date of an assignment and sets the PER\_TERMINATION\_DATE context with this value.

**SET\_ACCRUAL\_BALANCE (p\_pay\_assignment\_id, p\_element\_type, p\_element\_type\_id, p\_input\_value\_id, p\_accrual\_band\_id, p\_absence\_type\_id, p\_absence\_attendance\_id, p\_start\_date, p\_end\_date, p\_contributed\_amt)**

Sets the accrual balance details. The function accepts the following parameters:

**Parameters**

**p\_pay\_assignment\_id**

The assignment for which you want to set the accrual balance details

**p\_element\_type**

The type of element for which you want to set the details. Valid types are Accrual, Carryover, Absence, or other types of elements you may have added to the net calculation rules when you created the accrual plan.

**p\_element\_type\_id**

The ID of the element for which you want to set the balance details

**p\_input\_value\_id**

The ID of the input value of the element for which you want to set the balance details

**p\_accrual\_band\_id**

The ID of the accrual band that applies to the assignment

**p\_absence\_type\_id**

The name of the absence type. This parameter is applicable when you want to set details for the absence element type.

**p\_absence\_attendance\_id**

The ID of the absence record. This parameter is applicable when you want to set details for the absence element type.

#### **p\_start\_date**

If you are using this function to set details for the Absence element type, then set the value of this parameter to the start date of the absence. For setting details for the Carryover element type, specify the effective date of the carried over time.

#### **p\_end\_date**

If you are using this function to set details for the Absence element type, then set the value of this parameter to the end date of the absence. For setting details for the Carryover element type, specify the date when the carried over time expires.

#### **p\_contributed\_amt**

If you are using this function to set details for the additional elements you added in the net calculation rules, set the value of this parameter to the total amount of time recorded in those elements.

## **FAQs for Manage Accrual Plans**

### **When is gross accrual recalculated?**

The accrual formula recalculates gross accrual when you:

- Record an employee absence that is associated with an accrual plan.
- Review leave entitlement for employees from the **Review Accrual Balance** page.
- Run the Calculate Accrual Carryover process.
- Run your payroll (only for Oracle Fusion Global Payroll users).
- Review a statement of earnings online.

### **Why can't I see my accrual plan formulas on the accrual plan page?**

To be visible, your accrual plan formulas must:

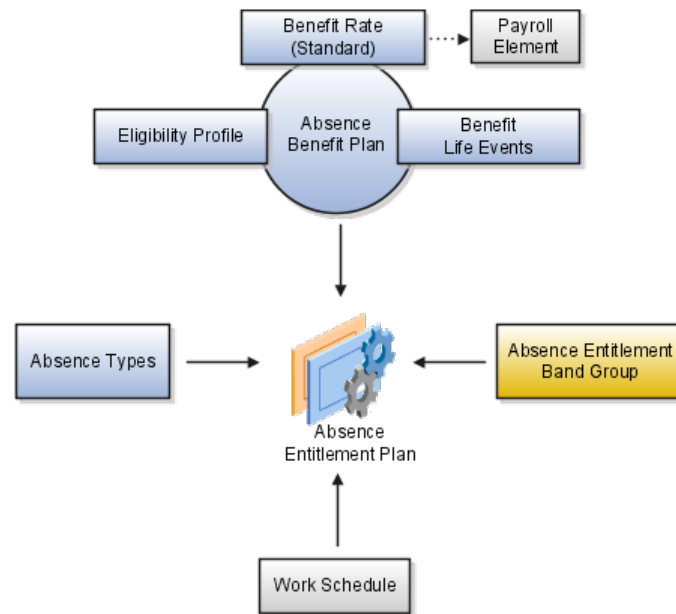
- Be effective on today's date
- Exist in the legislative data group that you want to create the accrual plan in
- Belong to the appropriate formula type:
  - Accrual formulas must belong to the Accrual type.
  - Carryover formulas must belong to the Accrual Carryover type
  - Ineligibility formulas must belong to the Accrual Ineligibility type.

## **Manage Entitlement Plans**

### **Absence Entitlement Plan Components: How They Work Together**

Absence entitlement plans are based on absence benefit plans, absence entitlement bands, absence types, work schedules, and a payroll element. You can configure all of these to reflect the plan policies of your enterprise.

The following figure shows the components of an absence entitlement plan.



### Absence Benefit Plan

The Evaluate Absence Plan Participation process enrolls eligible employees in an absence benefit plan. You must associate an absence benefit plan with the following benefit components:

Component	Description
Eligibility profile	The Participation and Rate Eligibility formula that you associate with the eligibility profile determines which absence entitlement plan applies for the type of recorded absence.
Life Events	Recording an absence start or end date, or deleting an absence, creates an absence life event, which is detected by the Evaluate Absence Plan Participation process.

### Benefit Rate

For the absence benefit plan, you must create a standard benefit rate. You must associate the following formulas with the rate:

- Rate Value Calculation formula, to calculate the length of service of the enrolled employee for entitlement band calculations.
- Extra Inputs formula, to determine absence information, such as the absence start date and end date, and the absence benefit plan ID.

The Evaluate Absence Plan Participation process updates the payroll element with the values that these formulas return.

---

### Note



You create the formulas only once. Subsequently, you can use the same formulas for all your absence entitlement plans.

---

### **Payroll Element**

You must create a recurring element for payroll runs to process. By default, the Evaluate Absence Plan Participation process updates the payroll element with the following values that the Rate Value Calculation formula and the Extra Inputs formula return:

- Absence type
- Absence start and end dates
- Length of service
- Absence benefit plan ID of the enrolled employee

According to your requirements, you can include other input values and write formulas to feed those values to display absence entitlements on an employee's pay advice.

### **Absence Entitlement Band Group**

You create an absence entitlement band group and associate it with an absence entitlement plan. The band group uses length of service to determine the amount of leave an employee can take and the percentage of payment that applies for each day of absence.

### **Absence Types**

You must associate at least one absence type with the absence entitlement plan. Recording absences of these types entitles the employee to the benefits of the associated absence entitlement plan.

### **Work Schedule**

By default, the Evaluate Absence Plan Participation process uses the work schedule that employees currently follow to determine the working days during an absence. You can create a default work schedule and associate it with the entitlement plan. The process uses the default schedule to determine working days if it does not find a schedule assigned to the employee.

## **Evaluate Absence Plan Participation Process: How It Calculates Absence Entitlement**

The Evaluate Absence Plan Participation process enrolls eligible employees in an absence benefit plan and identifies the absent days for which the enrolled employee is entitled to receive payment under an absence entitlement plan. The process records the entitlement information in a database table. You can write formulas to determine pay amounts on the basis of this information.

## **Settings That Affect Absence Entitlement**

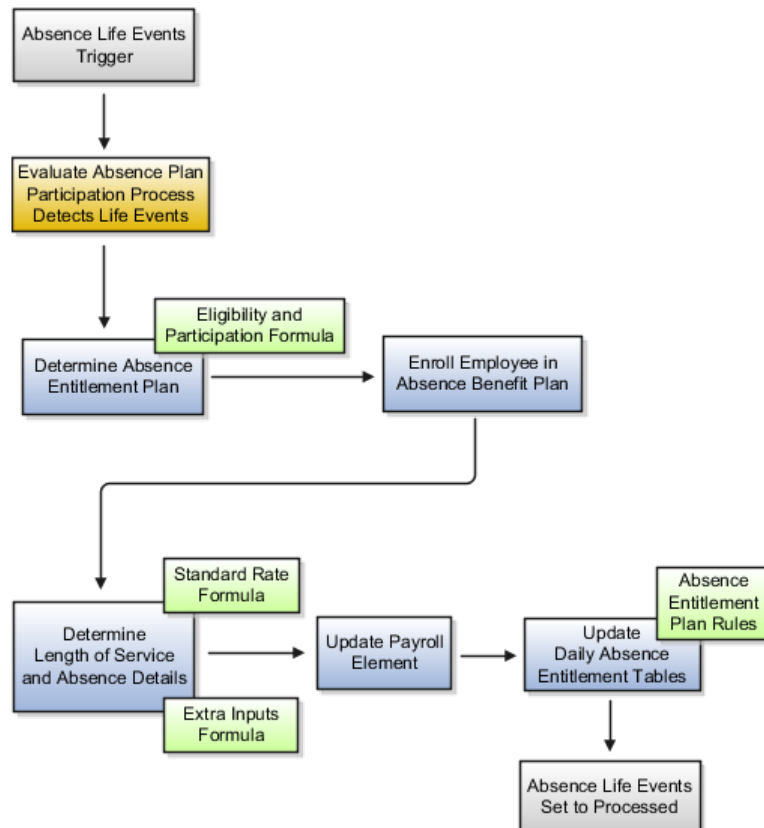
The rules that you specify in the absence entitlement plan control the entitlement calculation.

The parameters that you enter when you run the process determine the plans and people that are processed.

Parameter	Description
Effective Date	The date through which you want the process to evaluate absences.
Validate	If you select Rollback and run the process, you can check your results and correct errors before using the Save option to commit the results to the database.
Legal Entity, Payroll, Organization Name, Benefits Group, Location, Postal Code Ranges, Person Type, Person Name	You can run the process for a specific employee or all employees associated with a workforce structure level, such as a legal entity, or for employees associated with other levels, such as a payroll or benefit group.
Audit Log	If you select Yes, the process creates a file that lists the eligibility results for each person that the process evaluated.
Limit by Person's Organization	If you select Yes, the process only handles compensation objects that are associated with the employee's organization.

## How Absence Entitlement Is Calculated

The following diagram illustrates how the process determines the absence entitlement days.



Recording an absence triggers absence life events.

When you run the Evaluate Absence Plan Participation process, it detects these life events and searches for all absence benefit plans. For each absence benefit plan that it finds, the process runs the Eligibility and Participation formula associated with that plan to determine whether an absence entitlement plan exists for the combination of the absence benefit plan and the absence type that was used to record the absence. If an absence entitlement plan exists, the process enrolls the employee in the absence benefit plan.

The process then runs the following formulas associated with the absence benefit plan's standard rate and updates the payroll element:

- Rate Value Calculation formula, to determine the length of service of the enrolled employee
- Extra Inputs formula, to calculate other values such as the absence start and end dates, and the absence benefit plan ID

On the basis of the rules you set up in the absence entitlement plan, the process updates the following tables:

- BEN\_GAP\_ABSENCE\_PLANS
- BEN\_GAP\_DAILY\_ABSENCES

The information in the BEN\_GAP\_DAILY\_ABSENCES table indicates the entitlement for the employee for each absent day. Each row in this table contains the following columns:

Column	Description
Plan ID	Absence benefit plan ID of the enrolled employee.
Absence date	The absent day that the process calculated entitlement for
Work pattern day	Indicates whether the absent day was a working day (WORKON) or a non working day (OFFWORK)
Entitlement band	The entitlement band that applies on the absent day
Duration	Duration of absence on the absent day (for example, a value of 1 indicates a full day of absence and a value of 0.5 indicates a half day of absence.)
Duration in Hours	Duration of absence in hours on the absent day
Working days per week	The number of days in a week that the employee is scheduled to work
FTE	Full-time equivalent of the employee.

The information in the BEN\_GAP\_ABSENCE\_PLANS table stores absence type and absence plan information for each employee. Each row in this table contains the following columns:

Column	Description
GAP_ABSENCE_PLAN_ID	The primary key for this table
ASSIGNMENT_ID	The assignment ID of the employee

ABSENCE_ATTENDANCE_ID	The type of the absence that was recorded
PL_ID	The absence benefit plan ID
LAST_GAP_DAILY_ABSENCE_DATE	The date when the absence entitlement information was last updated in the table.

## Absence Entitlement Units of Measure: Critical Choices

You must set up your absence entitlement bands to express leave time as one of the following units of measure:

- Working days
- Working hours
- Calendar days
- Calendar weeks

### Working Days

Choose this option if you want the Evaluate Absence Plan Participation process to determine the working days from a work schedule assigned to the employee's primary assignment or a default work schedule that you associated with the absence entitlement plan. For example, if the absence start date is January 1, 2011 and the absence end date is February 25, 2011 and the employee follows a five-day work schedule, then the process calculates entitlement for 40 days.

### Working Hours

If you use this option, the process determines the working hours on the basis of the standard working hours of the employee's primary assignment. For example, if the absence start date is January 3, 2011 and the absence end date is February 1, 2011 and the employee's standard working hours are from 8 a.m. to 5 p.m. on all weekdays with Saturdays and Sundays as holidays, then the process calculates entitlement for 176 hours.

### Calendar Days

Choose this option if you want the process to express the time in terms of calendar days. For example, if the absence start date is January 1, 2011 and the absence end date is March 1, 2011, then the process calculates entitlement for 60 days.

### Calendar Weeks

This option is especially useful to create maternity absence plans. For example, if the absence start date is January 3, 2011 and the absence end date is August 1, 2011, then the process calculates entitlement for 30 weeks.

## Absence Entitlement Assessment Period Type: Critical Choices

An assessment period is essentially a time period during which the Evaluate Absence Plan Participation process calculates the total absent time recorded. On

the basis of this calculation, the process determines the leave time available for the current period of absence. When you create an absence entitlement plan, you must choose one of the following assessment period types:

- Fixed year - hire start date
- Fixed year - defined start date
- Rolling backward
- Event based

### **Fixed Assessment Period Based on Hire Date**

If you choose this option, you must determine, on the Absence Entitlement page, the type of hire date to use for the calculation:

- Service date of the employee's present legal employer
- Enterprise service date

### **Fixed Assessment Period Based on Defined Date**

You define the start date of the assessment period, for example, the start of the financial year, or the start of the calendar year. The entitlement calculation computes the total duration of absent time from the start date you define to the absence start date.

### **Rolling-Backward Assessment Period**

In a rolling-backward period, the absence entitlement calculation is based on the total duration of absence time taken for a specific amount of time that precedes the absence start date. For example, if you specify a one year rolling period, and the employee's absence start date is January 1, 2011, then the calculation counts the number of absences taken from January 2, 2010.

### **Event-Based Assessment Period**

Use this option if you want to create an entitlement plan for a maternity scheme. The entitlement calculation is based on the qualifying date that you select. You can set the qualifying date to a specific date before the expected week of childbirth, or the date when the employee starts her maternity absence.

## **Absence Overlap Rules: Examples**

When you specify an assessment period for an absence entitlement plan, you must select an overlap rule that determines how the Evaluate Absence Plan Participation process treats absences that overlap the assessment period. The examples in this topic will help you understand how you can:

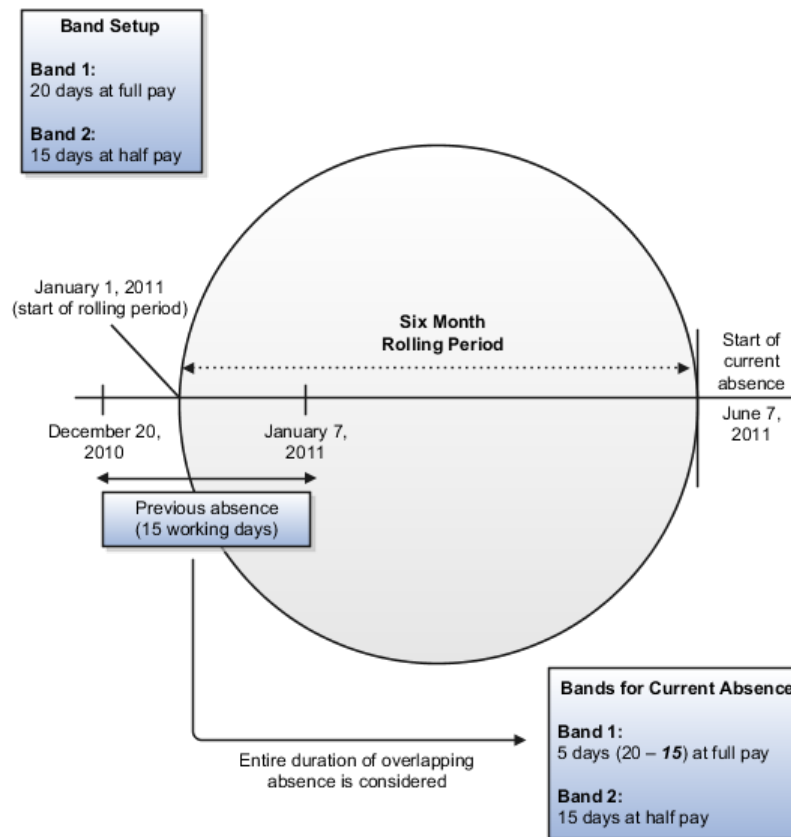
- Use the Include rule to assess absences that overlap current and previous periods
- Use the Exclude rule to ignore the entire absence that overlaps the current and previous periods
- Use the Split rule to assess absences falling within the current period only

## Using the Include Rule

This rule applies to rolling-backward assessment periods only. If an absence overlaps the beginning of the rolling period, then the entire absence is considered in the current assessment period.

For example, assume that you have defined a six-month rolling-backward assessment period in your entitlement plan and set up bands that entitle employees to 20 days of absence at full pay and a further 15 days at half pay. An employee starts sick leave on June 7, 2011 and the assessment period starts on January 1, 2011. The employee was paid previously under the same entitlement plan while on sick leave for a period of 15 working days from December 20, 2010 to January 7, 2011. Because the previous absence overlaps the current assessment period and you configured the entitlement plan to use the Include rule, the employee receives full pay for the first 5 (20 - 15) days of the absence and half-pay for the next 15 days.

The following figure shows the usage of the Include rule in this scenario.

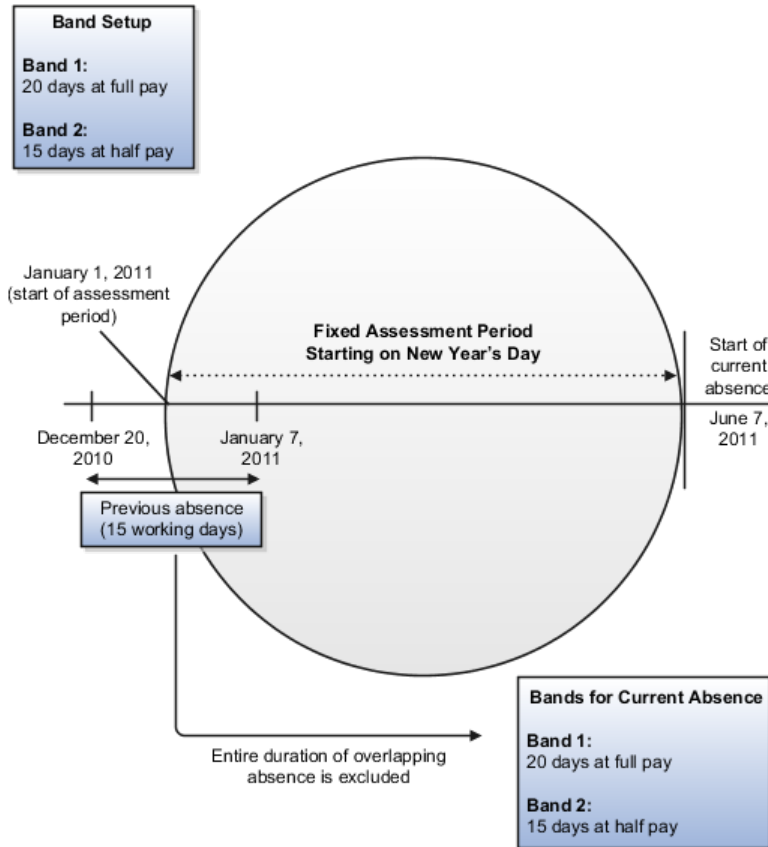


## Using the Exclude Rule

If an employee is absent at the beginning of an assessment period, then this rule ignores the entire absence that overlaps the period.

In the example used in the previous scenario, for an entitlement plan that uses the Exclude rule, the employee receives full pay for the first 20 days of the absence and half pay for the next 15 days. Because you used the Exclude rule, even though the previous absence overlaps the current assessment period, the employee receives the entitlement band benefits for the current absence without any deductions.

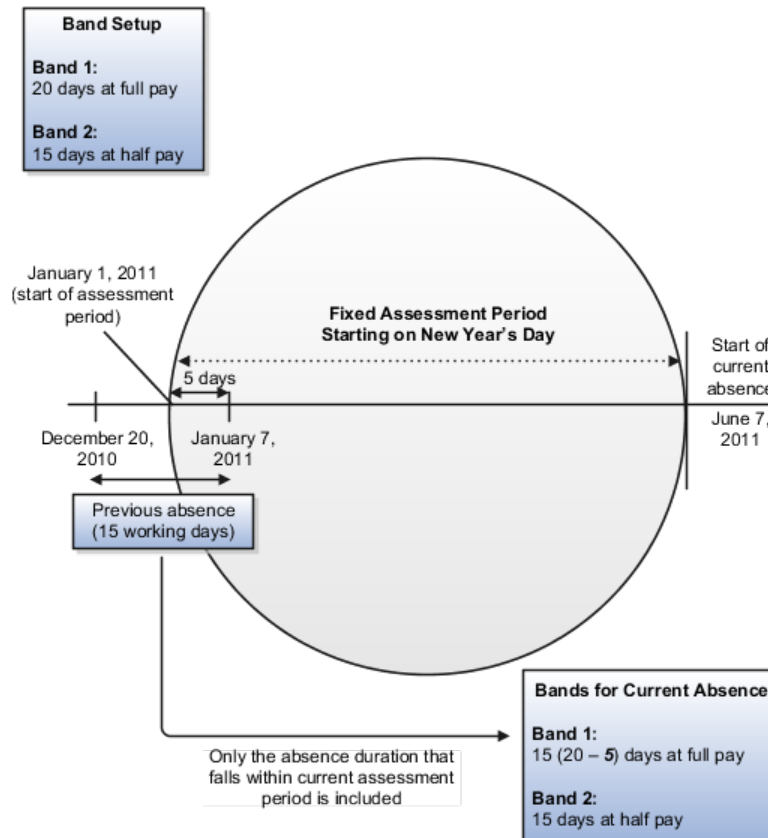
The following figure shows the usage of the Exclude rule in this scenario.



## Using the Split Rule

This rule assesses overlapping absences that fall within the current period only. In the example used in the previous scenario, for an entitlement plan that uses the Split rule, the employee receives full pay for the first 15 (20 - 5) days of the absence and half pay for the next 15 days.

The following figure shows the usage of the Split rule in this scenario.



## Excluding Absences from an Absence Entitlement Assessment Period: Example

When you define an assessment period in an absence entitlement plan, you can choose to exclude from the assessment period absences belonging to specific plan types. The assessment period extends back in time by the length of any such absences.

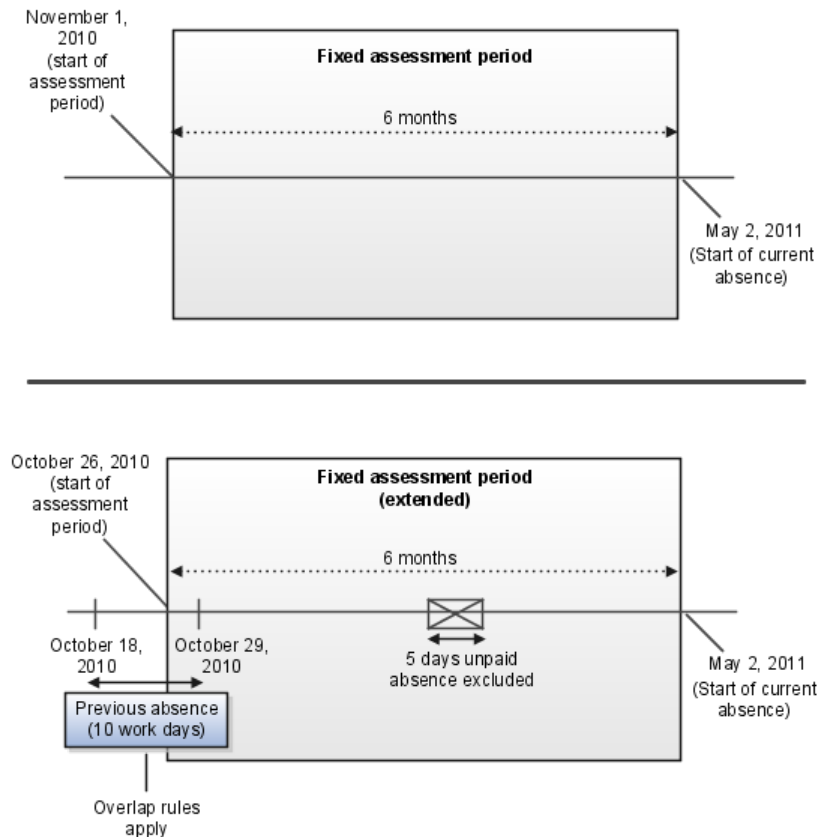
### Scenario

Assume that according to your enterprise's long term sick leave policy, the entitlement to employees must exclude any unpaid absences during a six-month assessment period. You configured the absence entitlement plan to add the plan type that records the unpaid absences in the Extend Assessment Period region. An employee starts sick leave on May 2, 2011. Earlier during the year, the employee was on unpaid leave for a period of 5 days from February 28, 2011 to March 4, 2011. Because the unpaid absence dates fall within the six-month assessment period, the period's start date moves back 5 days (the duration of the unpaid absence) to October 26, 2010 and calculates the number of absent days from that date while retaining the length of the assessment period's duration.

The calculation also considers any absences that may overlap the beginning of the extended assessment period. For example, in this scenario, assume that you set up the entitlement plan to include in the current assessment period the entire duration of absences that overlap. The employee was on sick leave for 10 working days from October 18, 2010 to October 29, 2010, for which sick pay was already awarded. In the present assessment period, the calculation considers those 10 absent days in the entitlement calculation.



The following figure illustrates that the length of the assessment period remains the same even though it starts five days earlier than the original date of November 1 because of the five-day unpaid leave during the period. It also shows that the entitlement calculations include the entire duration of a previous absence in the current assessment period, even though only 4 absence days overlap with the revised assessment period, starting October 26.



## Absence Entitlement Rounding Rules: Examples

When you create an absence entitlement plan, you can specify how the Evaluate Absence Plan Participation process must round off fractional amounts of time available in an absence entitlement band to determine the current absence entitlement.

### Rounding Amounts Down To the Nearest Whole Day

Suppose that you have set up an absence entitlement plan that uses a fixed assessment period of 1 year and rounds leave entitlements down to the nearest whole day. Employees are entitled to 20 calendar days of sickness at full pay. An employee had 13 days and 2 hours sick leave within the current assessment period, and is starting another 10 days of sick leave. At the beginning of this leave, the remaining entitlement is 6.75 days. Under the entitlement plan's rounding rules, the employee receives full pay for 6 days of the current absence.

### Rounding Amounts Up To the Nearest Half Day

In the previous scenario, if you had set up the absence entitlement plan to round up entitlement balances to the nearest half day, then at the start of the second absence, the employee is entitled to payment up to 7 days in Band 1.

### Rounding Amounts Down to a Single Decimal Place

In the previous scenario, if you had set up the absence entitlement plan to round down entitlement balances to a single decimal place, then at the start of the second absence, the employee is entitled to payment up to 6.7 days (rounded down from 6.75 days) in Band 1.

## Creating Absence Entitlement Bands: Examples

Use the scenarios in this topic to understand how you can create absence entitlement bands for an absence entitlement plan.

### Creating a Single Band with Varying Lengths of Service

For a specific band, you can vary the amount of absent time for which you want to pay employees by length of service. For example, you want employees who have completed between 5 and 10 years of service to receive 75% of pay for up to 10 days of absence. However, you want employees who have completed between 11 and 20 years to receive the same pay percentage, but up to 20 days of absence. In this scenario, you must create multiple length-of-service ranges for a single band. The following table illustrates the information that you must enter as part of the entitlement band:

Band	Length-of-Service Range	Entitled Leave Time	Eligible Pay Percentage
1	5 through 10	10 days	75%
1	11 through 20	20 days	75%

### Creating Multiple Bands with a Fixed Length-of-Service Range

You want all employees who have completed 5 years of service to receive 100% of pay for up to 10 days of leave, and 75% of pay up to a further 15 days of leave. The following table illustrates the information that you must enter as part of the entitlement bands to achieve this scenario:

Band	Length-of-Service Range	Entitled Leave	Eligible Pay Percentage
1	5 through 99	10 days	100%
2	5 through 99	15 days	75%

### Creating Multiple Bands with Varying Lengths of Service

You can create multiple absence entitlement bands with each band containing multiple ranges of lengths of service. You can associate for each length-of-service range a corresponding number of absent days for which you want eligible employees to receive payment. For example, you want employees who have completed less than 5 years of service to be eligible for 75% of pay for up to 10 days of absence and 50% of pay for a further 15 days of absence. Employees who have completed more than 5 years of service are eligible for full pay up to 10 days of absence and 75% of pay for a further 15 days of absence. The following table illustrates the information that you must enter as part of the entitlement band to achieve this scenario:

Band	Length-of-Service Range	Entitled Leave Time	Eligible Pay Percentage
1	0 through 5	10 days	75%
1	5 through 99	15 days	75%

2	0 through 5	15 days	50%
3	5 through 99	10 days	100%

## Participation and Rate Eligibility Formula Type for Absence Entitlement Plans

The Evaluate Absence Plan Participation process runs the Participation and Rate Eligibility formula to enroll eligible employees in an absence benefit plan. The formula output indicates whether an absence entitlement plan exists for the type of absence recorded.

You must associate the formula with an eligibility profile of an absence benefit plan. The formula must belong to the Participation and Rate Eligibility formula type. Provide a meaningful name for the formula so that you can easily identify it.

### *Contexts*

The following contexts are available to this formula.

- BUSINESS\_GROUP\_ID
- ASSIGNMENT\_ID
- DATE\_EARNED
- PGM\_ID
- PL\_ID
- OPT\_ID
- LER\_ID

### *Database Items*

The following database items are available to formulas of this type.

- All columns except attribute columns from the tables:
  - ben\_ler\_f
  - ben\_pgm\_f
  - ben\_pl\_f
  - ben\_pl\_typ\_f
  - ben\_opt\_f

The database items are based on the employee's assignment ID.

### *Return Values*

The following return value is available to this formula.

Return Value	Data Type	Required	Description
ELIGIBLE	Char	Yes	The value of this variable is Y if an entitlement plan exists for the type of absence recorded. The value is N if no entitlement plan exists.

## ***Errors***

If any other return value is passed back to the formula, then you can process errors with BEN\_91329\_FORMULA\_RETURN.

## ***Sample Formula***

You can either write your own formula, or use the following text to create the formula on the Fast Formula page:

```
DEFAULT FOR BEN_ABS_ABSENCE_CATEGORY IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_ABSENCE_TYPE_ID IS -987123654
DEFAULT FOR BEN_PLN_PL_ID IS -987123654

l_yn = 'N'
l_error = 0
l_absence_type_lookup_code = ' '
l_absence_type_list_name = ' '
l_truncated_yes_no = ' '
l_error_message = ' '
l_absence_type_meaning = ' '
l_absence_category = ' '

l_pl_id = BEN_PLN_PL_ID
l_absence_type_id = BEN_ABS_ABSENCE_TYPE_ID
l_abs_typ_id = to_char(l_absence_type_id)

l_absence_type_meaning = BEN_CHK_ABS_TYPE (l_abs_typ_id,l_yn)

IF NOT ISNULL(l_absence_type_meaning) = 'Y' THEN
(
  l_yn = 'Y'
)

ELIGIBLE = l_yn
RETURN ELIGIBLE
```

## **Extra Inputs Formula Type for Absence Benefit Plans**

When an employee records a long term absence, the Evaluate Absence Plan Participation process enrolls the employee in an absence benefit plan and runs the Extra Inputs formula to update the payroll element with details, such as the absence type, absence start and end dates, and the ID of the absence benefit plan that the employee was enrolled in.

You must associate the formula with a benefit rate for an absence benefit plan. The formula must belong to the Extra Input formula type. Provide a meaningful name for the formula so that you can easily identify it.

## ***Contexts***

The following contexts are available to this formula:

- BUSINESS\_GROUP\_ID
- ASSIGNMENT\_ID
- DATE\_EARNED
- ORGANIZATION\_ID
- JURISDICTION\_CODE
- PGM\_ID

- PL\_ID
- OPT\_ID
- LER\_ID
- PL\_TYP\_ID
- ACTY\_BASE\_RT\_ID

### ***Database Items***

The following database items are available to formulas of this type:

- All columns except attribute columns from tables:
  - ben\_ler\_f
  - ben\_pgm\_f
  - ben\_pl\_f
  - ben\_pl\_typ\_f
  - ben\_opt\_f
  - ben\_acty\_base\_rt\_f

The database items are based on the employee's assignment ID.

### ***Input Variables***

The following input values are available to this formula.

Input Value	Data Type	Required	Description
BEN_ABS_IV_ABSENCE_	Char	Yes	Absence record ID
BEN_ABS_IV_ABSENCE_	Char	Yes	Absence type ID
BEN_ABS_IV_DATE_STA	Char	Yes	Absence start date
BEN_ABS_IV_DATE_ENI	Char	Yes	Absence end date
BEN_ABS_IV_ABSENCE_	Char	Yes	Absence duration

### ***Return Values***

The following return values are available to this formula.

Return Value	Data Type	Required	Description
l_absence_id	Char	Yes	Absence record ID
l_plan_id	Char	Yes	Absence benefit plan ID that the employee enrolled in
l_absence_start_date	Char	Yes	Absence start date
l_absence_end_date	Char	Yes	Absence end date
l_absence_type	Char	Yes	Type of absence recorded

### ***Errors***

If type casting of variables causes errors, then you can process those errors with BEN\_92311\_FORMULA\_VAL\_PARAM.

## Sample Formula

You can either write your own formula, or use the following text to create the formula in the Fast Formula page:

```
/*
Set default values for database items.
*/
DEFAULT FOR BEN_ABS_ABSENCE_TYPE IS '_DEFAULT_'
DEFAULT FOR BEN_PLN_PL_ID IS -987123654

/* Other database items.
DEFAULT FOR BEN_ABS_ABSENCE_TYPE_ID IS -987123654
DEFAULT FOR BEN_ABS_ABSENCE_CATEGORY IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_ABSENCE_CATEGORY_CODE IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_ABSENCE_CATEGORY_ID IS -987123654
DEFAULT FOR BEN_ABS_REASON IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_REASON_CODE IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_REASON_ID IS -987123654
DEFAULT FOR BEN_ABS_DATE_START IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_ABS_DATE_END IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_ABS_SICKNESS_START_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_ABS_SICKNESS_END_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_ABS_DATE_NOTIFIED IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SMP_DUE_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SMP_MPP_START_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SMP_ACTUAL_BIRTH_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SMP_LIVE_BIRTH_FLAG IS 'Y'
DEFAULT FOR BEN_SSP_EVIDENCE_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SSP_EVIDENCE_SOURCE IS '_DEFAULT_'
DEFAULT FOR BEN_SSP_MEDICAL_TYPE IS 'SICKNESS'
DEFAULT FOR BEN_SSP_EVIDENCE_STATUS IS 'ACTIVE'
DEFAULT FOR BEN_SSP_SELF_CERTIFICATE IS 'N'
DEFAULT FOR BEN_ABS_ACCEPT_LATE_NOTIFICATION_FLAG IS 'Y'
DEFAULT FOR BEN_ABS_PREGNANCY_RELATED_ILLNESS IS 'N'
DEFAULT FOR BEN_SMP_NOTIFICATION_OF_BIRTH_DATE IS '1951/01/01
00:00:00'(DATE)
DEFAULT FOR BEN_SSP_EVIDENCE_RECEIVED_DATE IS '1951/01/01 00:00:00'(DATE)
DEFAULT FOR BEN_SSP_ACCEPT_LATE_EVIDENCE_FLAG IS 'Y'
*/

/*
Set default values for formula inputs.
*/
DEFAULT FOR BEN_ABS_IV_ABSENCE_ATTENDANCE_ID IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABSENCE_ATTENDANCE_TYPE_ID IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_DATE_START IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_DATE_END IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABSENCE_DAYS IS '_DEFAULT_'

/* Other available inputs.
DEFAULT FOR BEN_ABS_IV_ABS_ATTENDANCE_REASON_ID IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABSENCE_HOURS IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_DATE_NOTIFICATION IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_DATE_PROJECTED_END IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_DATE_PROJECTED_START IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_SSP1_ISSUED IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_LINKED_ABSENCE_ID IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_SICKNESS_START_DATE IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_SICKNESS_END_DATE IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_PREGNANCY_RELATED_ILLNESS IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_MATERNITY_ID IS '_DEFAULT_'
DEFAULT FOR BEN_PIL_IV_PER_IN_LER_ID IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE_CATEGORY IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE1 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE2 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE3 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE4 IS '_DEFAULT_'
```

```

DEFAULT FOR BEN_ABS_IV_ATTRIBUTE5 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE6 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ATTRIBUTE7 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION_CATEGORY IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION1 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION2 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION3 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION4 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION5 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION6 IS '_DEFAULT_'
DEFAULT FOR BEN_ABS_IV_ABS_INFORMATION7 IS '_DEFAULT_'
*/

/*
Declare input values.

Use the following naming convention for the inputs:
BEN_ABS_IV_
*/

INPUTS ARE BEN_ABS_IV_ABSENCE_ATTENDANCE_ID(TEXT)
,BEN_ABS_IV_ABSENCE_ATTENDANCE_TYPE_ID(TEXT)
,BEN_ABS_IV_DATE_START(TEXT)
,BEN_ABS_IV_DATE_END(TEXT)
,BEN_ABS_IV_ABSENCE_DAYS(TEXT)

/* Other available inputs
,BEN_ABS_IV_ABS_ATTENDANCE_REASON_ID(TEXT)
,BEN_ABS_IV_ABSENCE_HOURS(TEXT)
,BEN_ABS_IV_DATE_NOTIFICATION(TEXT)
,BEN_ABS_IV_DATE_PROJECTED_END(TEXT)
,BEN_ABS_IV_DATE_PROJECTED_START(TEXT)
,BEN_ABS_IV_SSP1_ISSUED(TEXT)
,BEN_ABS_IV_LINKED_ABSENCE_ID(TEXT)
,BEN_ABS_IV_SICKNESS_START_DATE(TEXT)
,BEN_ABS_IV_SICKNESS_END_DATE(TEXT)
,BEN_ABS_IV_PREGNANCY_RELATED_ILLNESS(TEXT)
,BEN_ABS_IV_MATERNITY_ID(TEXT)
,BEN_PIL_IV_PER_IN_LER_ID(TEXT)
,BEN_ABS_IV_ATTRIBUTE_CATEGORY(TEXT)
,BEN_ABS_IV_ATTRIBUTE1(TEXT)
,BEN_ABS_IV_ATTRIBUTE2(TEXT)
,BEN_ABS_IV_ATTRIBUTE3(TEXT)
,BEN_ABS_IV_ATTRIBUTE4(TEXT)
,BEN_ABS_IV_ATTRIBUTE5(TEXT)
,BEN_ABS_IV_ATTRIBUTE6(TEXT)
,BEN_ABS_IV_ATTRIBUTE7(TEXT)
,BEN_ABS_IV_ABS_INFORMATION_CATEGORY(TEXT)
,BEN_ABS_IV_ABS_INFORMATION1(TEXT)
,BEN_ABS_IV_ABS_INFORMATION2(TEXT)
,BEN_ABS_IV_ABS_INFORMATION3(TEXT)
,BEN_ABS_IV_ABS_INFORMATION4(TEXT)
,BEN_ABS_IV_ABS_INFORMATION5(TEXT)
,BEN_ABS_IV_ABS_INFORMATION6(TEXT)
,BEN_ABS_IV_ABS_INFORMATION7(TEXT)
*/

/*
Initialise standard default values.
*/
l_null = RPAD('X',0,'Y')
l_default = '_DEFAULT_'
l_default_date = '1951/01/01 00:00:00'(date)
l_default_canonical_date = '1951/01/01 00:00:00'
l_default_number = -987123654
l_default_canonical_number = '-987123654'

```

```

l_absence_id_iv = BEN_ABS_IV_ABSENCE_ATTENDANCE_ID

/* 1. Check that a default value was not used for the absence attendance
   ID.

If an absence attendance id was not found, the default value is used.
This may occur if this formula is used in a plan that does not have an
absence
"context" available. Ensure that you select Absence as the option type of
the
associated plan type. Ensure that you select Absence as the type of the
associated
life event reasons.
*/
IF NOT l_absence_id_iv = l_default THEN
(

l_absence_id = TO_NUMBER(l_absence_id_iv)
l_plan_id = BEN_PLN_PL_ID
l_absence_start_date_dt = BEN_ABS_IV_DATE_START
l_absence_type = BEN_ABS_ABSENCE_TYPE
l_absence_end_date = BEN_ABS_IV_DATE_END
)
ELSE
(
l_absence_id = l_default_number
l_plan_id = l_default_number
l_absence_start_date = l_null
l_absence_end_date = l_null
l_absence_type = l_null
)

RETURN l_absence_id
,l_plan_id
,l_absence_start_date
,l_absence_end_date
,l_absence_type

```

## Rate Value Calculation Formula Type for Absence Benefit Plans

When an employee records a long term absence, the Evaluate Absence Plan Participation process enrolls the employee in an absence benefit plan and runs the Rate Value Calculation formula to determine the enrolled employee's length of service. The process uses the length of service to determine the entitlement bands that apply during the absence period.

You must create the formula for the standard benefit rate that you want to associate with the absence benefit plan. The formula must belong to the Rate Value Calculation formula type. Provide a meaningful name for the formula so that you can easily identify it.

### *Contexts*

The following contexts are available to this formula:

- BUSINESS\_GROUP\_ID
- ASSIGNMENT\_ID
- DATE\_EARNED or p\_effective\_date

### *Database Items*

The database items available to this formula are based on the employee's assignment ID.



## Return Values

The following return value is available to this formula.

Return Value	Data Type	Required	Description
LENGTH_OF_SERVICE	Number	Yes	A number that indicates the length of service of the enrolled employee.

## Sample Formula

You can either write your own formula, or use the following text to create the formula in the Fast Formula page:

```
/*
Set default values.
*/

DEFAULT FOR BEN_ABS_DATE_START IS '1951/01/01 00:00:00'(date)
DEFAULT FOR PER_ASG_REL_DATE_START IS '1951/01/01 00:00:00'(date)

/*
Initialize standard default values.
*/
l_null = RPAD('X',0,'Y')
l_default = '_DEFAULT_'
l_default_date = '1951/01/01 00:00:00'(date)
l_default_canonical_date = '1951/01/01 00:00:00'
l_default_number = -987123654
l_default_canonical_number = '-987123654'
l_length_of_service = -987123654

/*
Determine the absence start date and the employee hire date.
*/
l_absence_start_date = BEN_ABS_DATE_START
l_employee_hire_date = PER_ASG_REL_DATE_START

/*
Check that an absence start date is available for processing.

If an absence start date was not found, the default value is used.
This may occur if this formula is used in a plan that does not have
an absence "context" available. Ensure that you select Absences as
the option type of the associated plan type. Ensure that you select
Absence as the type of the associated life event reasons.
*/
IF NOT l_absence_start_date = l_default_date THEN
(
/*
Check that an absence start date is available to process.

If an employee hire date was not found, the default value is used.
This may occur if the person was not an eligible person type.
Check the associated eligibility profile to ensure that only persons
belonging to the Employee person type are selected for plan enrollment.
*/
IF NOT l_employee_hire_date = l_default_date THEN
(
/*
Calculate the length of service.
*/
```

```

l_length_of_service = FLOOR( MONTHS_BETWEEN (l_absence_start_date,
l_employee_hire_date)))
)

LENGTH_OF_SERVICE = l_length_of_service
RETURN LENGTH_OF_SERVICE

```

## Creating a Sickness Absence Entitlement Plan: Worked Example

This example demonstrates how to create an absence entitlement plan for employees taking long term absences related to sickness.

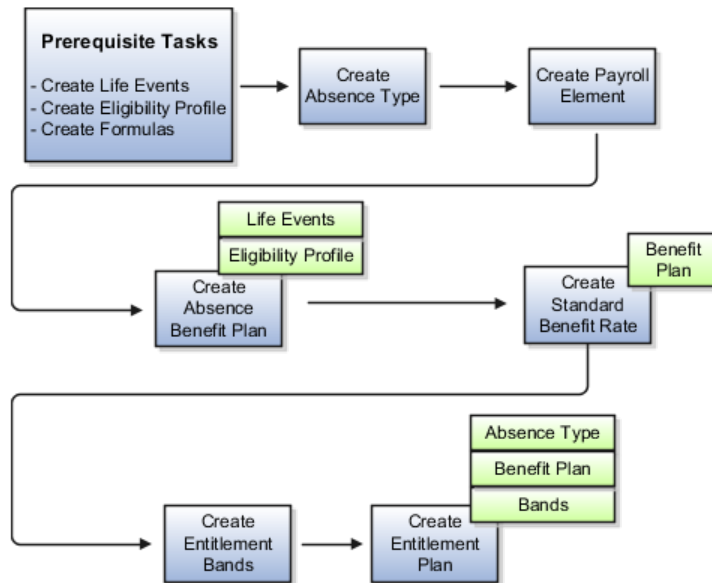
The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Who is eligible for the sickness absence entitlement plan?	Full-time employees
Which type of absence must employees going on long term sick leave record?	Sick Plan Leave
How should absence payments be processed in payroll runs?	By means of a recurring information element so that absence payments are processed into a single calculation for the current payroll period.
What units must entitlement bands express leave time in?	Working days
How much leave time are employees entitled to payment for under this entitlement plan?	<p>Employees who have completed less than 5 years of service are entitled to receive 100% pay for the first 15 absent days, 75% pay for a further 20 days, and no pay for a further 10 days of absence.</p> <p>Employees who have completed 5 years of service are entitled to receive 100% pay for the first 30 days of absence, 75% pay for a further 20 days, and 50% for a further 15 days of absence.</p>
Should fractional leave time in entitlement bands be rounded off?	Yes, round off leave time up to the nearest whole day.
What is the assessment period for this entitlement plan?	Fixed period that starts from the employee's hire date anniversary
How must absences that overlap at the beginning of the assessment period be processed?	Consider only those absent days that fall in the current assessment period.

Before you start, ensure that you create life events, an eligibility profile, and associated formulas. You can reuse these for any sickness or maternity absence entitlement plans that you create subsequently.

Create an absence type for employees to record absences. Create a recurring payroll element to record the absence entitlement details. Create a benefit plan and associate with it the eligibility profile and life events that you created. Create a standard benefit rate for the absence benefit plan and associate with it formulas that determine the employee's length of service and other absence information to update the payroll element. Create absence entitlement bands that determine the amount of leave time that the employee is entitled to. Finally, create an absence entitlement plan and associate with it the entitlement bands, the absence type, the absence benefit plan, and other plan rules.

The following diagram shows the tasks to complete in this example.



## Prerequisites

1. Create absence life events that trigger when an employee records an absence start date or end date, or deletes an absence.
2. Create and compile the following formulas:
  - Participation and Rate Eligibility formula, to determine whether an absence entitlement plan exists for the type of absence recorded
  - Rate Value Calculation formula, to calculate the employee's length of service
  - Extra Inputs formula, to determine other absence information
3. Create an eligibility profile for employees who work full-time and associate with it the Participation and Rate Eligibility formula you created.

## Creating an Absence Type

1. On the Set Up Workforce Deployment work area, click **Manage Absence Types** to open the Manage Absence Types page.
2. Click **Create**.
3. On the Create Absence Type page, complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Name	Sick Plan Leave
Valid From Date	January 1, 2011

4. Click **Submit**.

## Creating a Payroll Element

1. On the Payroll Calculation work area, click **Manage Elements** to open the Manage Elements page.
2. Click **Create**.

3. In the Create Element window, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Legislative Data Group	Enter your legislative data group
Primary Classification	Information

4. Click **Continue**.
5. On the Create Element: Basic Information page, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Name	Sick Plan Pay Element
Reporting Name	Sick Plan Pay Element
Effective Date	January 1, 2011
At which employment level should this element be attached?	Payroll Relationship Level  You must select this value because, during enrollment, the Evaluate Absence Plan Participation process considers only those elements defined at the payroll relationship level.
Can a person have more than one entry of this element in a payroll period?	Yes

6. Click **Next**.
7. On the Create Element: Additional Information page, right-click **Input Values**, and click **Create Input Value**.
8. Complete the fields for each input value, as shown in this table.

Input Value	User Display	User Enterable
Attendance ID	Yes	Yes
Absence Type	Yes	Yes
Plan ID	Yes	Yes
Absence Start Date	No	No
Absence End Date	No	No
Length of Service	Yes	Yes

9. Click **Apply**.
10. Right-click **Element Eligibility**, and then click **Create Element Eligibility**.
11. Complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Element Link Name	SickPlan_Pay_Element_Link
Relationship Type	Standard
Payroll Statutory Unit	Select your payroll statutory unit.

12. Click **Apply**.

13. Click **Submit**.

## Creating a Benefit Plan Type, Benefit Plan, and Benefit Rate

### Creating a Benefit Plan Type

1. On the Benefits work area, click **Plan Design**, and then click **Manage Benefit Plan Types** to open the Manage Plan Types page.
2. Click **Create**.
3. On the Create Plan Type page, complete the fields as shown in the table. Use the default values except where indicated.

Field	Value
Plan Type Name	Medical Leave Plans
Option Type	Absences  You must select this value because the Evaluate Absence Plan Participation process considers only those benefit plans that belong to a plan type configured with the Absences option type.

4. Click **Save and Close**.

### Creating a Benefit Plan

1. Click **Manage Benefit Plan Details** to open the Overview page.
2. In the Plans tab, click **Create**.
3. On the Create Plan: Basic Details page, complete the fields as shown in the table. Use the default values except where indicated.

Field	Value
Plan Name	Sickness Plan
Plan Type	Medical Plans
Usage	Not in program
Status	Active
Inception Date	January 1, 2011
Year Period	From January 1, 2011 to December 31, 2011

4. Click **Next** twice to navigate to the Create Plan: Eligibility page.

5. Complete the information in the tabs as shown in this table. Use the default values except where indicated.

Tab	Information
Participation	Add the eligibility profile that you created.
Life Event	Add the absence end life event that you created

6. Click Next.
7. On the Create Plan: Enrollment page, complete the information in the General tab as shown in this table.

Field	Value
<b>Enrollment Method</b>	Automatic  You must select this value so that the Evaluate Absence Plan Participation process automatically enrolls eligible employees into the absence benefit plan.

8. Click the Life Event tab and add the absence start and absence end life events that you created.
9. For each life event, complete the fields, as shown in this table. Use the default values except where indicated.

Field	Absence Start Life Event	Absence End Life Event
<b>Enrollment Period Start Date Rule</b>	As of event date	As of event date
<b>Enrollment Period End Date Rule</b>	As of event date	As of event date
<b>Coverage start rule</b>	Event	Event
<b>Rate start rule</b>	Event  You must select this value so that the standard benefit rate for the absence benefit plan calculates the enrolled employee's length of service when the event occurs.	Event

<b>Previous Rate End Rule</b>	End of Pay Period  You must select this value to enable the payroll run to process this element. When an absence end date is recorded, the Evaluate Absence Plan Participation process updates the element entry's end date with the last day of the current payroll period.	End of Pay Period
-------------------------------	--	-------------------

10. Click **Save and Close**.

### Creating a Benefit Rate

1. On the Benefits work area, click **Plan Design**, and then click **Manage Benefit Rates** to open the Overview page.
2. Click the Rates and Coverages tab.
3. In the **Create** menu, click **Standard**.
4. Complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
<b>Effective Start Date</b>	January 1, 2011
<b>Legal Employer</b>	Select your legal employer
<b>Rate Name</b>	Sickness Plan Rate
<b>Plan</b>	Sickness Plan
<b>Status Rule</b>	Active
<b>Rate Display Type</b>	Any
<b>Activity Type</b>	Any
<b>Element and Input Values Required</b>	Yes
<b>Assign on Enrollment</b>	Yes
<b>Display on Enrollment</b>	Yes
<b>Tax Type Code</b>	Not Applicable  You must select this value because the calculated amount in the case of absence benefit plans is the length of service, which does not require a tax type code.
<b>Payroll Element</b>	Sick Plan Pay Element
<b>Element Input Value</b>	Length of Service
<b>Input Value Calculation Formula</b>	Select the Extra Input formula that you created.

<b>Value Passed to Payroll</b>	<p>Defined Amount</p> <p>You must select this value because the amount to pass to the element entry during enrollment is the length of service of the employee.</p>
--------------------------------	---

- On the Create Rates page, click the Calculation tab.
- In the Calculation tab, complete the fields as shown in this table.

Field	Value
<b>Calculation Method</b>	<p>Calculate for Enrollment Formula</p> <p>You select this value so that the Evaluate Absence Plan Participation process uses a formula to calculate the length of service of the enrolled employee.</p>
<b>Post Enrollment Calculation Formula</b>	Select the Rate Value Calculation formula that you created.

- On the Create Rates page, click the Extra Inputs tab.
- Click **Add**.
- Complete the fields for each extra input as shown in this table.

Input Value	Formula Return Variable Name
Attendance ID	l_absence_id
Plan ID	l_plan_id
Absence Type	l_absence_type

- Click **Save and Close**.

## Creating an Absence Entitlement Plan

### Creating Entitlement Bands

- On the Benefits work area, click **Absences**, and then click **Band Entitlement** to open the Band Entitlement page.
- Click **Create**.
- On the Band Entitlement page, complete the fields as shown in this table.

Field	Value
<b>Name</b>	Sick Plan Bands
<b>Unit of Measure</b>	Working days

- Create the bands as shown in this table.



Band	Sequence	Length of Service	Entitled Leave Time	Pay Percentage
Band 1	1	0 through 5 years	15 days	100%
Band 1	1	5 through 99 years	30 days	100%
Band 2	2	0 through 5 years	20 days	75%
Band 2	2	5 through 99 years	20 days	75%
Band 3	3	0 through 5 years	10 days	No pay
Band 4	4	5 through 99 years	15 days	50%

5. Click **Save and Close**.

## Specifying Rules in an Absence Entitlement Plan

1. Click **Absence Scheme** to open the Manage Entitlement Plans page.
2. Click **Create**.
3. On the Create Entitlement Plan page, complete the fields as shown in this table.

Field	Value
<b>Name</b>	Sickness Plan Entitlement
<b>Legislative Data Group</b>	Select your legislative data group.
<b>Plan Name</b>	Sickness Plan
<b>Scheme</b>	Occupational Sick Pay
<b>Start Date</b>	January 1, 2011
<b>Absence Type</b>	Sick Plan Leave
<b>Assessment Period Type</b>	Fixed Year - Hire Start Date
<b>Employment Event</b>	Enterprise Service Date
<b>Overlap Rule</b>	Split
<b>Band Entitlement Name</b>	Sickness Plan Bands
<b>Schedule Name</b>	Select a default schedule to determine working days if the application finds no schedule assigned to the enrolled employee.
<b>Full-Time Rounding</b>	To nearest whole day

4. Click **Submit**.

## Creating a Maternity Absence Entitlement Plan: Worked Example

This example demonstrates how to create an absence entitlement plan for employees taking maternity leave.

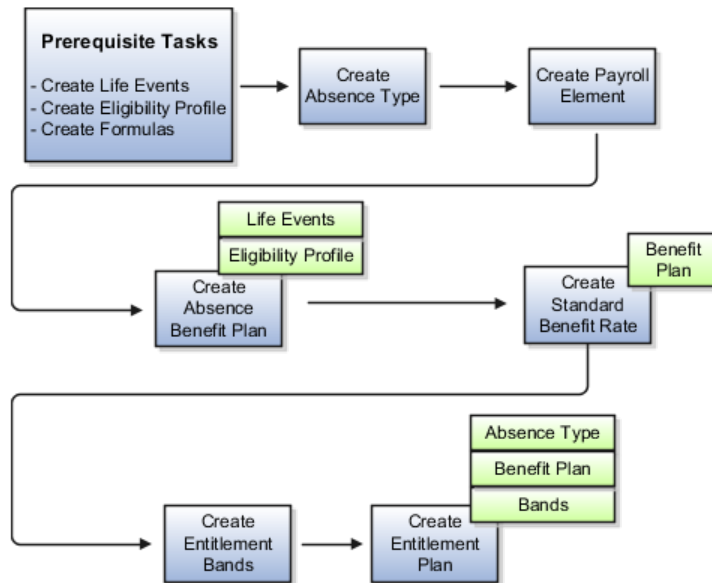
The following table summarizes key decisions in this scenario.

Decisions to Consider	In This Example
Who is eligible for the maternity absence entitlement plan?	Full-time employees
Which type of absence must employees taking maternity leave record?	Maternity Plan Leave
What units must entitlement bands express leave time in?	Calendar weeks
How much leave time are employees entitled to payment for under this entitlement plan?	Employees who complete 1 year of service and who intend to return to work after their maternity leave are entitled to receive payment for 8 weeks at full pay followed by 16 weeks at 50% pay.  Employees who complete 1 year of service and who are not returning to work are entitled to receive payment for the first 6 weeks at 90% pay followed by 12 weeks at 45% pay.
When must employees start to receive maternity pay?	From the date on which they start their maternity leave
How must absences that overlap at the beginning of the assessment period be processed?	Use the Exclude rule to ignore any absences that overlap the current assessment period.

Before you start, ensure that you create life events, an eligibility profile, and associated formulas. You can reuse these for any sickness or maternity absence entitlement plans that you create subsequently.

Create an absence type for employees to record absences. Create a recurring payroll element to record the absence entitlement details. Create a benefit plan and associate with it the eligibility profile and life events that you created. Create a standard benefit rate for the absence benefit plan and associate with it formulas that determine the employee's length of service and other absence information to update the payroll element. Create absence entitlement bands that determine the amount of leave time that the employee is entitled to. Finally, create an absence entitlement plan and associate with it the entitlement bands, the absence type, the absence benefit plan, and other plan rules.

The following figure shows the tasks to complete in this example.



## Prerequisites

1. Create absence life events that trigger when an employee records an absence start date or end date, or deletes an absence.
2. Create and compile the following formulas:
  - Participation and Rate Eligibility formula, to determine whether an absence entitlement plan exists for the type of absence recorded
  - Rate Value Calculation formula, to calculate the employee's length of service
  - Extra Inputs formula, to determine other absence information
3. Create an eligibility profile for employees who work full-time and associate with it the Participation and Rate Eligibility formula you created.

## Creating an Absence Type

1. On the Set Up Workforce Deployment work area, click **Manage Absence Types** to open the Manage Absence Types page.
2. Click **Create**.
3. On the Create Absence Type page, complete the fields, as shown in this table. Use the default values except where indicated.

Field	Value
Name	Sick Plan Leave
Valid From Date	January 1, 2011

4. Click **Submit**.

## Creating a Payroll Element

1. On the Payroll Calculation work area, click **Manage Elements** to open the Manage Elements page.
2. Click **Create**.

3. In the Create Element window, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Legislative Data Group	Enter your legislative data group
Primary Classification	Information

4. Click **Continue**.
5. On the Create Element: Basic Information page, complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Name	Sick Plan Pay Element
Reporting Name	Sick Plan Pay Element
Effective Date	January 1, 2011
At which employment level should this element be attached?	Payroll Relationship Level  You must select this value because, during enrollment, the Evaluate Absence Plan Participation process considers only those elements defined at the payroll relationship level.
Can a person have more than one entry of this element in a payroll period?	Yes

6. Click **Next**.
7. On the Create Element: Additional Information page, right-click **Input Values**, and click **Create Input Value**.
8. Complete the fields for each input value, as shown in this table.

Input Value	User Display	User Enterable
Attendance ID	Yes	Yes
Absence Type	Yes	Yes
Plan ID	Yes	Yes
Absence Start Date	No	No
Absence End Date	No	No
Length of Service	Yes	Yes

9. Click **Apply**.
10. Right-click **Element Eligibility**, and then click **Create Element Eligibility**.
11. Complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
Element Link Name	MaternityPlan_Pay_Element_Link
Relationship Type	Standard
Payroll Statutory Unit	Select your payroll statutory unit.

12. Click **Apply**.
13. Click **Submit**.

## Creating a Benefit Plan Type, Benefit Plan, and Benefit Rate

### Creating a Benefit Plan Type

1. On the Benefits work area, click **Plan Design**, and then click **Manage Benefit Plan Types** to open the Manage Plan Types page.
2. Click **Create**.
3. On the Create Plan Type page, complete the fields as shown in the table.

Field	Value
Plan Type Name	Medical Leave Plans
Option Type	Absences  You must select this value because the Evaluate Absence Plan Participation process considers only those benefit plans that belong to a plan type configured with the Absences option type.

4. Click **Save and Close**.

### Creating a Benefit Plan

1. Click **Manage Benefit Plan Details** to open the Overview page.
2. In the Plans tab, click **Create**.
3. On the Create Plan: Basic Details page, complete the fields as shown in the table.

Field	Value
Plan Name	Maternity Plan
Plan Type	Medical Plans
Usage	Not in program
Status	Active
Inception Date	January 1, 2011
Year Period	From January 1, 2011 to December 31, 2011

4. Click **Next** twice to navigate to the Create Plan: Eligibility page.

5. Complete the information in the tabs as shown in this table. Use the default values except where indicated.

Tab	Information
Participation	Add the eligibility profile that you created.
Life Event	Add the absence end life event that you created

6. Click Next.
7. On the Create Plan: Enrollment page, complete the information in the General tab as shown in this table.

Field	Value
Enrollment Method	Automatic  You must select this value so that the Evaluate Absence Plan Participation process automatically enrolls eligible employees into the absence benefit plan.

8. Click the Life Event tab and add the absence start and absence end life events that you created.
9. For each life event, complete the fields, as shown in this table. Use the default values except where indicated.

Field	Absence Start Life Event	Absence End Life Event
Enrollment Period Start Date Rule	As of event date	As of event date
Enrollment Period End Date Rule	As of event date	As of event date
Coverage start rule	Event	Event
Rate start rule	Event  You must select this value so that the standard benefit rate for the absence benefit plan calculates the enrolled employee's length of service when the event occurs.	Event

<b>Previous Rate End Rule</b>	End of Pay Period  You must select this value to enable the payroll run to process this element. When an absence end date is recorded, the Evaluate Absence Plan Participation process updates the element entry's end date with the last day of the current payroll period.	End of Pay Period
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10. Click **Save and Close**.

### Creating a Benefit Rate

1. On the Benefits work area, click **Plan Design**, and then click **Manage Benefit Rates** to open the Overview page.
2. Click the Rates and Coverages tab.
3. In the **Create** menu, click **Standard**.
4. Complete the fields as shown in this table. Use the default values except where indicated.

Field	Value
<b>Effective Start Date</b>	January 1, 2011
<b>Legal Employer</b>	Select your legal employer
<b>Rate Name</b>	Maternity Plan Rate
<b>Plan</b>	Maternity Plan
<b>Status Rule</b>	Active
<b>Rate Display Type</b>	Any
<b>Activity Type</b>	Any
<b>Element and Input Values Required</b>	Yes
<b>Assign on Enrollment</b>	Yes
<b>Display on Enrollment</b>	Yes
<b>Tax Type Code</b>	Not Applicable  You must select this value because the calculated amount in the case of absence benefit plans is the length of service, which does not require a tax type code.
<b>Payroll Element</b>	Maternity Plan Pay Element
<b>Element Input Value</b>	Length of Service
<b>Input Value Calculation Formula</b>	Select the Extra Input formula that you created.

<b>Value Passed to Payroll</b>	<p>Defined Amount</p> <p>You must select this value because the amount to pass to the element entry during enrollment is the length of service of the employee.</p>
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- On the Create Rates page, click the Calculation tab.
- In the Calculation tab, complete the fields as shown in this table.

Field	Value
<b>Calculation Method</b>	<p>Calculate for Enrollment Formula</p> <p>You select this value so that the Evaluate Absence Plan Participation process uses a formula to calculate the length of service of the enrolled employee.</p>
<b>Post Enrollment Calculation Formula</b>	Select the Rate Value Calculation formula that you created.

- On the Create Rates page, click the Extra Inputs tab.
- Click **Add**.
- Complete the fields for each extra input as shown in this table.

Input Value	Formula Return Variable Name
Attendance ID	l_absence_id
Plan ID	l_plan_id
Absence Type	l_absence_type

- Click **Save and Close**.

## Creating an Absence Entitlement Plan

### Creating Entitlement Bands for Employees Intending to Return After Maternity Leave

- On the Benefits work area, click **Absences**, and then click **Band Entitlement** to open the Band Entitlement page.
- Click **Create**.
- On the Band Entitlement page, complete the fields as shown in this table.

Field	Value
Name	Maternity Plan Bands Return
Unit of Measure	Calendar weeks

- Create the bands as shown in this table.



Band	Sequence	Length of Service	Entitled Leave Time	Pay Percentage
Band 1	1	5 through 99 years	8 weeks	100%
Band 2	2	5 through 99 years	16 weeks	50%

- Click **Save and Close**.

## Creating Entitlement Bands for Employees Not Returning After Maternity Leave

- On the Band Entitlement page, click **Create**.
- Complete the fields as shown in this table.

Field	Value
Name	Maternity Plan Bands Not Returning
Unit of Measure	Calendar weeks

- On the Band Entitlement page, create the following bands for employees who intend to return after their maternity leave.

Band	Sequence	Length of Service	Entitled Leave Time	Pay Percentage
Band 1	1	5 through 99 years	6 weeks	90%
Band 2	2	5 through 99 years	12 weeks	45%

- Click **Save and Close**.

## Specifying Rules in an Absence Entitlement Plan

- Click **Absence Scheme** to open the Manage Entitlement Plans page.
- Click **Create**.
- On the Create Entitlement Plan page, complete the fields as shown in this table.

Field	Value
Name	Maternity Plan Entitlement
Legislative Data Group	Select your legislative data group.
Plan Name	Maternity Plan
Scheme	Occupational Maternity Pay
Start Date	January 1, 2011
Absence Type	Maternity Plan Leave
Assessment Period Type	Event Based

Period Qualifying Date	Leave Begin Date
Employment Event	Enterprise Service Date

4. Click **Submit**.

## Creating Life Events for Absence Entitlement Plans: Worked Example

This example demonstrates how to create absence life events. Recording long term absences for employees triggers these life events, which the Evaluate Absence Plan Participation process detects to determine absence entitlements for the enrolled employee.

You must create life events with person changes that cover the following events:

- Recording an absence start date
- Recording an absence end date
- Deleting an absence

### Creating Person Changes

1. On the Benefits page, click **Plan Design**, and then click **Manage Benefit Life Events** to open the Manage Life Events page.
2. Click the **Data Changes** tab, and then the **Person Changes** tab.
3. In the Create Person Change window, complete the fields for each person change, as shown in this table.

Field	Person Change: Absence Start	Person Change: Absence End	Person Change: Absence Delete
Name	Plan Absence Start	Plan Absence End	Plan Absence Delete
Table Name	PER_ABSENCE_ATT	PER_ABSENCE_ATT	PER_ABSENCE_ATTENDANCES
Old Value	Any Value	Any Value	No Value
New Value	Any Value	Any Value	Any Value

4. Click **Save and Close**.

### Creating Life Events

1. Click the Life Events tab.
2. Click **Create**.
3. On the Create Life Event page, complete the fields for each life event, as shown in this table.

Field	Life Event: Absence Start	Life Event: Absence End	Life Event: Absence Delete
Name	Plan Absence Start	Plan Absence End	Plan Absence Delete

<b>Type</b>	Absence	Absence	Absence
<b>Life Event Operation Code</b>	Start Event	End Event	Delete Event
<b>Person Change</b> (Person Changes tab)	Plan Absence Start	Plan Absence End	Plan Absence Delete

4. Click **Save and Close**.

## Creating an Eligibility Profile for Absence Entitlement Plans: Worked Example

This example demonstrates how to create an eligibility profile for absence benefit plans. When you record long term absences for employees, the Evaluate Absence Plan Participation process enrolls employees in the absence benefit plan on the basis of the criteria defined in the eligibility profile.

In this example, according to your enterprise policy, you must set up the eligibility profile to first check whether the employee works full-time and then check, with the help of a formula, whether an absence entitlement plan exists for the type of absence recorded.

Create an eligibility profile for full-time employees and associate with it the Participation and Rate Eligibility formula.

### Prerequisite

1. Create and compile a Participation and Rate Eligibility formula that determines whether an absence entitlement plan exists for the absence benefit plan that the employee enrolled in.

### Creating an Eligibility Profile

1. On the Benefits page, click **Plan Design**, and then click **Manage Benefit Plan Details** to open the Overview page.
2. Click the Eligibility Profiles tab.
3. In the **Create** menu, click **Participant**.
4. On the Create Participant Eligibility Profile page, complete the fields, as shown in this table.

Field	Value
<b>Name</b>	Full-Time Employees
<b>Status</b>	Active
<b>Assignment To Use</b>	Any Assignment - Benefit Relationship

5. Click the Employment tab, and then the Assignment Category tab.
6. Complete the fields as shown in this table.

Field	Value
Sequence	1
Full Time or Part Time	Full-time employment

7. Click the Other tab, and then the Formula tab.
8. Complete the fields as shown in this table.

Field	Value
Sequence	2
Formula	Select the Participation and Rate Eligibility formula that you created.

9. Click **Save and Close**.

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## Define Transactional Business Intelligence Configuration

### Define Transactional Business Intelligence Configuration: Highlights

Configure Oracle Transactional Business Intelligence for ad hoc reporting, review certain setup objects to be used in Transactional Business Intelligence, and manage the presentation catalog and currency type display.

#### Defining Transactional Business Intelligence Configuration

- Review details about the Transactional Business Intelligence tasks. Refer to the Oracle Fusion Transactional Business Intelligence Administrator's Guide.

### Assigning Security Profiles to Job Roles for Oracle Fusion Transactional Business Intelligence Users: Explained

Users of Oracle Fusion Transactional Business Intelligence (Transactional Business Intelligence) need access to some person data for reporting purposes. To provide this access, you assign a predefined security profile to relevant job or abstract roles using the Oracle Fusion Human Capital Management (HCM) setup task Manage Data Role and Security Profiles. On completion of this task, Oracle Fusion Data Security is updated automatically for roles being used to access Transactional Business Intelligence.

#### Job or Abstract Roles and Related Security Profiles

The following table identifies, by Oracle Fusion product, the job and abstract roles that need access to person data and the predefined security profile that you assign to each role.

Product	Job or Abstract Role	Security Profile
Oracle Fusion Assets	Asset Accountant	View All Workers
Oracle Fusion Assets	Asset Accounting Manager	View All Workers
Oracle Fusion Enterprise Planning and Budgeting	Budget Analyst	View All Workers

Oracle Fusion Enterprise Planning and Budgeting	Budget Manager	View All Workers
Oracle Fusion Financial Consolidation Hub	Consolidation Accountant	View All Workers
Oracle Fusion Financial Consolidation Hub	Consolidation Manager	View All Workers
Oracle Fusion Financials Common Module	Intercompany Accountant	View All Workers
Oracle Fusion General Ledger	Financial Analyst	View All Workers
Oracle Fusion General Ledger	General Accountant	View All Workers
Oracle Fusion General Ledger	General Accounting Manager	View All Workers
Oracle Fusion Incentive Compensation	Incentive Compensation Participant Manager	View Manager Hierarchy
Oracle Fusion Inventory Management	Warehouse Manager	View All Workers
Oracle Fusion Project Foundation	Project Accountant	View All Workers
Oracle Fusion Project Foundation	Project Administrator	View All Workers
Oracle Fusion Project Foundation	Project Billing Specialist	View All Workers
Oracle Fusion Purchasing	Buyer	View All Workers
Oracle Fusion Sourcing	Category Manager	View All Workers
Oracle Fusion Sourcing	Sourcing Project Collaborator	View All Workers

For example, as part of their Transactional Business Intelligence setup:

- Oracle Fusion Assets implementors must assign the predefined security profile View All Workers to the Asset Accountant and Asset Accounting Manager job roles.
- Oracle Fusion Incentive Compensation implementors must assign the predefined security profile View Manager Hierarchy to the abstract role Incentive Compensation Participant Manager.

The security profiles that HCM roles need to access Transactional Business Intelligence are assigned during the setup of HCM data security: no additional setup is required for Transactional Business Intelligence purposes.

## Enabling an Oracle Fusion Transactional Business Intelligence User to Access Person Data: Worked Example

This example shows how to assign a security profile to a job or abstract role to enable users with that role to access person data. This task is required for users of Oracle Fusion Transactional Business Intelligence (Transactional Business Intelligence) who do not also use Oracle Fusion Human Capital Management (HCM).

The following table summarizes key decisions for this scenario. When performing this task, use the job or abstract role for your product and the name of the relevant predefined person security profile in place of those shown here.

Decisions to Consider	In This Example
What is the name of the Transactional Business Intelligence job or abstract role?	Warehouse Manager
What is the name of the person security profile?	View All Workers

## Summary of the Tasks

To perform these tasks, you must have the role IT Security Manager.

1. Launch the task Manage Data Role and Security Profiles.
2. Search for the job or abstract role.
3. Assign the relevant predefined security profile to the job or abstract role.

## Launching the Task Manage Data Role and Security Profiles

1. On the Overview page of the Setup and Maintenance work area, click the **All Tasks** tab.
2. In the Search region, complete the fields as shown in this table:

Field	Value
<b>Search</b>	Tasks
<b>Name</b>	Manage Data Role and Security Profiles

3. Click **Search**.
4. In the search results, click **Go to Task** for the Manage Data Role and Security Profiles task.

## Searching for the Job or Abstract Role

1. On the Manage HCM Data Roles page, enter the job name Warehouse Manager in the **Role** field.
2. Click **Search**.
3. In the search results, highlight the entry for the Warehouse Manager job role.
4. Click **Assign**.

## Assigning the Security Profile to the Job Role

1. In the **Person Security Profile** field on the Assign Data Role: Security Criteria page, select the security profile View All Workers.
2. Click **Review**.
3. On the Assign Data Role: Review page, click **Submit**.





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## Define Predictive Models for Human Capital Management

### Managing Predictive Models: Explained

Oracle Fusion Workforce Predictions provides predefined models for the prediction of worker performance and voluntary termination. Each predictive model is based on multiple attributes.

You can:

- Run predictive models to provide up-to-date predictions.
- Remove individual predictive models from the predictions process.
- Remove individual attributes from the predictive models or what-if analyses.
- Create predictive attributes to include in the predefined predictive models or what-if analyses.

#### Running Predictive Models

When you run a predictive model, the process Collect Data and Perform Data Mining for Predictive Analytics is invoked immediately to:

- Rebuild the selected predictive models.
- Make predictions based on scores derived during the build process.

If the volume of relevant transactions (such as transfers, hires, terminations, and promotions) is high in your enterprise, then you need to schedule the process Collect Data and Perform Data Mining for Predictive Analytics to run weekly. At a minimum, you are recommended to run the process monthly to take account of latest data trends. When scheduled, the process rebuilds and runs all predictive models.

If you add attributes to or remove attributes from a predictive model, and you want to include those changes in predictions immediately, then you need to run the predictive model immediately rather than wait for the next scheduled run of Collect Data and Perform Data Mining for Predictive Analytics.

## Removing Predictive Models

To remove a predictive model from the predictions process, you deselect the **Include in Predictions** option for the model. In this case, the model is excluded when you run Collect Data and Perform Data Mining for Predictive Analytics, whether you run it immediately or as a scheduled process. Consequently, related analytics in transactional flows, such as Promote Worker, are empty.

## Creating and Editing Predictive Attributes

You can create predictive attributes to include in the predefined predictive models. To derive the value of the new attribute, you create a fast formula database item (DBI) group and select it in the **Formula Function** field. You can also control which predefined and locally created predictive attributes appear in what-if analyses.

In SaaS (Software as a Service) environments, you cannot create formula functions; therefore, you may not be able to create predictive attributes.

You can edit or delete any predictive attribute that you create; you cannot edit or delete predefined predictive attributes. For any attribute, you can edit how the attribute appears in what-if analyses. For example, you can change the minimum and maximum values on a slider scale.

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## Define Extensions and Page Customizations for Workforce Deployment

### Define Custom Enterprise Scheduler Jobs

#### Managing Job Definitions: Highlights

Oracle Enterprise Scheduler jobs are run in Oracle Fusion Applications to process data and, in some cases, to provide report output. A job definition contains the metadata that determines what the job does and what options are available to users who run the job. You can create and maintain job definitions for use in Oracle Fusion Applications.

Managing job definitions is fully described in the Oracle Fusion Applications Administrator's Guide. As you read content from that guide, note that the guide describes managing Oracle Enterprise Scheduler, including job definitions, from Oracle Enterprise Manager Fusion Applications Control. You can also access job definitions by starting in the Setup and Maintenance Overview page and searching for the Enterprise Scheduler job tasks for your applications.

#### Selecting the Appropriate Implementation Task

Each Enterprise Scheduler job definition task uses one Java EE application, which is referenced in the task name. You must use the right task because, to access the product job definition that you want to view or work on, the view objects must be contained in the application. If you do not select the right task, then the job definition will not be displayed properly or function correctly. The application name is usually the same as the product that the job definition belongs to, but not always.

- For example, the Oracle Fusion Payables Java EE application contains the Oracle Fusion Expenses product view objects. To create or maintain a job definition for use in Expenses, you select the Manage Custom Enterprise Scheduler Jobs for Payables and Related Applications task.
- In another example, the Oracle Fusion Payments product view objects are contained in both Oracle Fusion Payables and Oracle Fusion Receivables

Java EE applications. You need to select the task appropriate to the job definition for Payments. Use the Manage Custom Enterprise Scheduler Jobs for Receivables and Related Applications task if the job is for receivables functionality, or the Manage Custom Enterprise Scheduler Jobs for Payables and Related Applications task if the job is for payables functionality.

- Use the task description to see the products that correspond to the Java EE application specified in the task name. For example, the description for the Payables task lists Oracle Fusion Payables, Assets, Expenses, and Payments.
- You can view task descriptions in the help window for the task, if any, or in the generated setup task lists and tasks report from the Getting Started page.
- If you have access to the Manage Task Lists and Tasks page, you can also open the details for specific tasks to see the description.
- For general information about product and Java EE application relationships, use Oracle Enterprise Manager Fusion Applications Control (Fusion Applications Control).

See: Topology Section

### **Viewing and Creating Job Definitions**

- You can access predefined and custom job definitions.

See: Viewing Job Definitions

- You can create jobs based on Java, PL/SQL, or any other supported technology.

See: Creating a Job Definition

- If you are using the Setup and Maintenance work area, then the Enable submission from Enterprise Manager check box is available for the job definition.
- If you do not select this check box, then the job cannot be run from Enterprise Manager.
- If you select this check box, then you can define parameters for this job definition only in Enterprise Manager. Save the rest of your work on the job definition, and then go to Enterprise Manager if you need to define parameters.

## **Managing List of Values Sources: Highlights**

A list of values source for Oracle Enterprise Scheduler job definitions determines where a list of values comes from and what the specific values are. These lists of values are used in parameters and user properties of job definitions. For example, you can use a source of country values for a Country job parameter.

Managing list of values sources is fully described in the Oracle Fusion Applications Administrator's Guide. As you read content from that guide, note that the guide describes managing Oracle Enterprise Scheduler, including

list of values sources, from Oracle Enterprise Manager Fusion Applications Control. You can also access list of values sources by starting in the Setup and Maintenance Overview page and searching for Enterprise Scheduler job tasks.

### **Registering and Searching for List of Values Sources**

- Create list of values sources to register them for use in job definitions.

See: Registering Sources for Lists of Values

- Search for list of values sources to edit or delete, or to make sure a particular source does not already exist before you create it.

See: Searching for List of Value Sources

## **Customization and Sandboxes**

### **Customizing Pages Using Oracle Composer: Highlights**

You can customize dashboards and some work areas, where available, for all or some users based on a selected customization layer, for example only for users in a specific country or with a specific job role. When you select to customize a page from the **Administration** menu in the global area, you invoke Oracle Composer, which enables the customization. The Administration menu is only available if you have appropriate roles.

From the same menu, you can also:

- Customize the global area.
- Access the Customization Manager, which displays a list of components in the current page and details about the layers in which each component is customized.
- Access sandboxes from the Administration menu, to make customizations to a runtime use session before deploying your changes to the mainline.

Customizing pages using Oracle Composer, the Customization Manager, and sandboxes are described in the Oracle Fusion Applications Extensibility Guide.

### **Editing Pages**

- Customizations that you can make to existing pages include adding content and changing layout.

See: Editing a Page in Oracle Composer

- You can also update display and other options for specific components within the page.

See: Editing Component Properties in Oracle Composer

### **Global Page Template**

- Customize the global area at the site layer.

See: Editing the UI Shell Template Used by All Pages

## Customization Manager

- Use Customization Manager to analyze and diagnose customization metadata, and to perform customization related tasks that cannot be done in the user interface, for example to revert customizations to a previous version. You can also do direct customization by manipulating the metadata and uploading it back.

See: Using Customization Manager to Manage Runtime Customizations

## Sandboxes

- Create or select an appropriate sandbox, and set it as active to capture your customizations using Oracle Composer. When you are ready, you publish the sandbox to make your changes available to users.

See: Using the Sandbox Manager

## Sandboxes: Highlights

Use a sandbox to commit customizations to a runtime use session for validation before deploying changes to the mainline. Administrators create and manage sandboxes. An active sandbox isolates changes from the mainline and other users.

Sandboxes can contain the following types of customization changes.

- Metadata, such as non-flexfield UI page customizations
- Data security
- Generated flexfields business components

Metadata changes are captured in a metadata sandbox. Data security changes are additionally captured in a data security enabled sandbox. Changes to a flexfield are captured in a flexfield that is deployed as a single flexfield sandbox. Once you are ready to make sandbox changes available in the mainline, you either publish the metadata or data security sandbox, or deploy the flexfield. Only metadata and data security sandboxes can be downloaded as a sandbox file for import to another Oracle Fusion Applications instance.

The following table lists the differences among the types of sandboxes.

Type of Changes	Type of Sandbox	Method for Making Changes Available in Mainline	Downloadable?
Metadata	Sandbox	Publish sandbox	Yes
Data security	Sandbox enabled for data security changes	Publish sandbox	Yes
Flexfield	Flexfield deployed as a flexfield-enabled sandbox	Deploy flexfield	No

Only one sandbox can be active at a time. Changes made while a sandbox is active are captured in that sandbox.

For more information on using the Sandbox Manager, and customizing and securing pages, business objects, data, and custom objects in a sandbox, see the Oracle Fusion Applications Extensibility Guide.

### **Managing a Page Customization Sandbox**

You can make metadata (MDS) type changes in a sandbox, including menu customizations, changes to the personalization menu, implicit ADF customizations, or changes made with Oracle Composer or CRM Application Composer.

- If you are entitled to do so, manage sandboxes in the Sandbox Manager.

See: Using the Sandbox Manager

- Implement customizations on an existing page to change the metadata of a sandbox before deploying the changes to the mainline.

See: Customizing Existing Pages

- Using CRM Application Composer, customize business objects in a sandbox before deploying the changes to the mainline.

See: Customizing Objects

### **Managing a Data Security Sandbox**

You can create a sandbox for data security testing, or designate an existing sandbox to become enabled for data security testing.

- If you are entitled to do so, manage data security-enabled sandboxes in the Sandbox Manager.

See: Using the Sandbox Manager

- If you customize business objects in CRM Application Composer, you may need to define data security policies to make them accessible to users.

See: Defining Security Policies for Business Objects

- If you create new business objects, you need to secure them.

See: Customizing Security for Custom Business Objects

### **Managing a Flexfield Sandbox**

You create a flexfield-enabled sandbox by deploying one flexfield to a sandbox using the Manage Flexfield task flow. The flexfield sandbox gets its name from the flexfield you deploy. You cannot test two flexfields in the same sandbox. Once you deploy a flexfield as a sandbox, you must sign out and back in to view how the sandbox runtime reflects the flexfield changes, such as new segments. You can redeploy the same flexfield to the same sandbox repeatedly as you make incremental changes to the flexfield setup.

- Since a flexfield sandbox cannot be published, any page customizations or data security in the flexfield sandbox cannot reach the mainline when the flexfield is deployed to the mainline. If you have entitlement to do so, see [Deploying a Flexfield to a Sandbox: Points to Consider](#).
- If you are entitled to do so, manage flexfield-enabled sandboxes in the Sandbox Manager.

See: [Using the Sandbox Manager](#)



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# Importing and Exporting Setup Data

## Configuration Packages: Explained

Almost all Oracle Fusion application implementations require moving functional setup data from one instance into another at various points in the lifecycle of the applications. For example, one of the typical cases in any enterprise application implementation is to first implement in a development or test application instance and then deploy to a production application instance after thorough testing. You can move functional setup configurations of applications from one application instance into another by exporting and importing Configuration packages from the Manage Configuration Packages page.

A Configuration Package contains the setup import and export definition. The setup import and export definition is the list of setup tasks and their associated business objects that identifies the setup data for export as well as the data itself. When you create a configuration package only the setup export and import definition exists. Once you export the configuration package appropriate setup data is added to the configuration package using the definition. Once a configuration package is exported, the setup export and import definition is locked and cannot be changed.

You generate the setup export and import definition by selecting an implementation project and creating a configuration package. The tasks and their associated business objects in the selected implementation project define the setup export and import definition for the configuration package. In addition, the sequence of the tasks in the implementation project determine the export and import sequence.

## Exporting and Importing Setup Data: Explained

A configuration package is required to export setup data. You can export a configuration package once you create it, or at any time in the future. During export, appropriate setup data will be identified based on the setup export definition and added to the configuration package. The setup data in the configuration package is a snapshot of the data in the source application instance at the time of export. After the export completes, you can download the configuration package as a zipped archive of multiple XML files, move it to the target application instance, and upload and import it.

### Export

You can export a configuration package multiple times by creating multiple versions. While the export definition remains the same in each version, the setup data can be different if you modified the data in the time period between the different runs of the export process. Since each version of the configuration package has a snapshot of the data in the source instance, you can compare and

analyze various versions of the configuration package to see how the setup data changed.

### **Import**

In the target application instance, the setup import process will insert all new data from the source configuration package that does not already exist and update any existing data with changes from the source. Setup data that exists in the target instance but not in source will remain unchanged.

### **Export and Import Reports**

You can review the results of the export and import processes using reports. The results appear ordered by business objects and include information on any errors encountered during the export or import process. If a setup export or import process paused due to errors encountered or for a manual task to be performed outside of the application, then you can resume the paused process.

These reports show what setup data was exported or imported and by which specific process. You can change the reports to validate the setup data as well as to compare or analyze it. A report is generated for each business object. These reports show the same information as the export and import results seen directly in the application.

Process status details are available as text files showing the status of an export or import process including the errors encountered during the process.

## **Moving Common Reference Objects**

### **Moving Common Reference Objects: Overview**

The common reference objects in Oracle Fusion Middleware Extensions for Applications are used by several setup tasks in the Setup and Maintenance work area. The common reference objects become a part of the configuration package that is created for an implementation project. While moving the application content, for example, from the test phase to the production phase of an implementation, you must pay special attention 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 that is 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, it is necessary that all the dependencies are noted before the movement of objects so that there are no broken references among the objects.

## **Business Objects for Moving Common Reference Objects: Points to Consider**

Common reference objects in Oracle Fusion Functional Setup Manager are represented by business objects. These business objects are the agents that contain the application content and carry them across whenever the application setup is moved from one environment to another, for example, test environment to production environment.

#### **Choice of Parameters**

The following table lists the business objects, the corresponding movement details, and the effect of the setup task parameter on the scope of the movement.

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**Note**

Only the translation in the current user language is moved.

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Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Menu Customization	Customizations to the navigator menu	Movement of navigator menu customizations requires manual effort. For details regarding the manual command, refer to the Oracle Fusion Applications Administrators Guide.
Application Message	Messages and associated tokens	No parameters: all messages are moved.  moduleType/moduleKey: only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  messageName/applicationId: only the specified message is moved.
Application Taxonomy	Application taxonomy modules and components	No parameters: all taxonomy modules and components are moved.
Application Attachment Entity	Attachment entities	No parameters: all attachment entities are moved.  moduleType/moduleKey: only attachment entities belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.
Application Attachment Category	Attachment categories and category-to-entity mappings	No parameters: all attachment categories and category-to-entity mappings are moved.  moduleType/moduleKey: only attachment categories belonging to the specified module and its descendant modules in the taxonomy hierarchy along with the respective category-to-entity mappings are moved.
Application Document Sequence Category	Document sequence categories	No parameters: all categories are moved.  moduleType/moduleKey: only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  code/applicationId: only the specified document sequence category code is moved.

Application Document Sequence	Document sequences and their assignments	<p>No parameters: all sequences are moved.</p> <p><code>moduleType/moduleKey</code>: only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved</p> <p><code>name</code>: only the specified document sequence is moved.</p>
Application Descriptive Flexfield	Descriptive flexfield registration data and setup data	<p>No parameters: all descriptive flexfields are moved.</p> <p><code>moduleType/moduleKey</code>: only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>descriptiveFlexfieldCode/applicationId</code>: only the specified descriptive flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p> <hr/>

Application Extensible Flexfield	Extensible flexfield registration data and setup data, including categories	<p>No parameters: all extensible flexfields are moved</p> <p><code>moduleType/moduleKey</code>: only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>extensibleFlexfieldCode/applicationId</code>: only the specified extensible flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p> <hr/>
Application Key Flexfield	Key flexfield registration data and setup data	<p>No parameters: all key flexfields are moved.</p> <p><code>moduleType/moduleKey</code>: only key flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>keyFlexfieldCode/applicationId</code>: only the specified key flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p> <hr/>

Application Flexfield Value Set	Value set setup data	<p>No parameters: all value sets are moved.</p> <p><code>moduleType/moduleKey</code>: only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>valueSetCode</code>: only the specified value set is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a value set's metadata can change the deployment status of flexfields that use the value set, and therefore the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/>
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.
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><code>moduleType/moduleKey</code>: only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: 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><code>moduleType/moduleKey</code> - only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: 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><code>moduleType/moduleKey</code>: only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: only the specified set-enabled lookup is moved.</p>
Application Profile Category	Profile categories	<p>No parameters: all profile categories are moved.</p> <p><code>moduleType/moduleKey</code>: only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>name/applicationId</code>: 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><code>moduleType/moduleKey</code>: only profile options and their values belonging to the specified module are moved.</p> <p><code>profileOptionName</code>: only the specified profile option and its values are moved.</p>

Application Profile Value	Profile options and their values	<p>No parameters: all profiles and their values are moved.</p> <p><code>moduleType/moduleKey</code>: only profiles and their values belonging to the specified module are moved.</p> <p><code>categoryName/categoryApplicationId</code>: only profiles and their values belonging to the specified category are moved.</p> <p><code>profileOptionName</code>: 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><code>determinantType</code>: only assignments for the specified determinant type are moved.</p> <p><code>determinantType/referenceGroupName</code>: 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><code>moduleType/moduleKey</code>: only tree structures (and their labels) belonging to the specified module are moved.</p> <p><code>treeStructureCode</code>: 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><code>moduleType/moduleKey</code>: only trees belonging to the specified module are moved.</p> <p><code>treeStructureCode</code>: only trees belonging to the specified tree structure are moved.</p> <p><code>TreeStructureCode/TreeCode</code>: 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><code>moduleType/moduleKey</code>: only tree structures (and their labels) belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><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><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><code>objName</code>: only the specified database resource along with its actions/conditions/policies is moved.</p> <hr/> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the policies being moved contain reference to newly created roles, move the roles before moving the policies.</li> <li>• If the source and target systems use different LDAPs, manually perform the GUID reconciliation after moving the data security policies.</li> </ul>
Application Activity Stream Configuration	Activity stream options	No parameters: all activity stream options are moved.

## Moving Related Common Reference Objects: Points to Consider

Certain common reference objects may use other common reference objects creating dependencies among the objects. During the movement of common reference objects, these dependencies or references need to be taken care of.

### 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 choose 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 choose to move only value sets and not lookups, or you may choose to move both value sets and their lookups as part of the same package. Whatever be the combination, it is recommended 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 guidelines and exactly follow the order as listed below.

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.

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#### 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 being moved have dependencies on newly created security roles, you must move the security roles before moving the security policies.

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## Using Seed Data Framework to Move Common Reference Objects: Points to Consider

To move the common reference objects, you can use the Seed Data Framework (SDF). You can also use the command line interface of SDF to move the object setup data. For more information about seed data loaders including common reference object loaders, see Oracle Fusion Applications Developer's Guide.

## Movement Dependencies

The seed data interface moves only the setup metadata. For example, if you use SDF to import flexfield metadata, the flexfield setup metadata is imported into your database. However, you must invoke the flexfield deployment process separately after seed data import to regenerate the runtime flexfield artifacts in the target environment. Similarly, if you use SDF to import data security metadata, you must first move any new referenced roles and then manually run the GUID reconciliation where required.

To ensure that the reference data is not lost during the movement, certain guidelines are prescribed. It is recommended that you perform the movement of object data exactly in the order given below.

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### Note

Only the translation in the current user language is moved.

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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.



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# Glossary

**absence balance**

A running total of the hours or days an employee has taken for the absence type.

**absence category**

A group of related absence types for reporting purposes.

**absence entitlement band**

A level that determines the payment that employees must receive for a specific number of days during a long leave of absence based on their length of service.

**absence entitlement plan**

A benefit that entitles employees to receive payment while on long leaves of absence.

**absence type**

A grouping of absences, such as illness or personal business, that are handled together for reporting, accrual, and compensation calculations.

**abstract role**

A description of a person's function in the enterprise that is unrelated to the person's job (position), such as employee, contingent worker, or line manager. A type of enterprise role.

**accounting flexfield**

The chart of accounts that determines the structure, such as the number and order of individual segments, as well as the corresponding values per segment.

**accrual band**

A range of eligibility criteria that identify how much paid time eligible employees accrue over the course of an accrual term. The criteria may be years of service, grades, hours worked, or some other factor.

**accrual carryover**

Amount of unused time in the previous accrual term that an employee can use in the next accrual term.

**accrual ceiling**

Maximum amount of time that an employee can accrue in an accrual term.

**accrual period**

A time interval, such as one month, in which employees accrue time within an accrual term.

**accrual plan**

A benefit that entitles employees to accrue time for the purpose of taking leave.

**accrual term**

Period of time, often one year, for which accruals are calculated.

**action**

Tracks changes to certain Human Capital Management (HCM) records, for example, changes to employment and assignment records. You can create your own actions and associate them with the predefined action types. You can optionally associate action reasons with actions.

**action**

The kind of access named in a security policy, such as view or edit.

**action reason**

Action reasons provide further explanation to actions, for example, an action of transfer could have reasons such as reorganization or career progression.

**ADF**

Acronym for Application Developer Framework. A set of programming principles and rules for developing software applications.

**application identity**

Predefined application level user with elevated privileges. An application identity authorizes jobs and transactions for which other users are not authorized, such as a payroll run authorized to access a taxpayer ID while the user who initiated the job is not authorized to access such personally identifiable information.

**application role**

A role specific to applications and stored in the policy store.

**Applications Core**

Abbreviation for Oracle Fusion Middleware Extensions for Applications. The technical product code is FND.

**assessment period**

A fixed or rolling period of time during which absences are evaluated for payment under an absence entitlement plan.

**assignment**

A set of information, including job, position, pay, compensation, managers, working hours, and work location, that defines a worker's or nonworker's role in a legal employer.

**assignment statement**

A statement used to set a value for a local variable in a fast formula.

**balance**

Positive or negative accumulations of values over periods of time normally generated by payroll runs. A balance can sum pay values, time periods, or numbers.

**balance dimension**

The scope of a balance value, such as the period of time over which it is accumulated and whether it relates to a single assignment, terms, or payroll relationship.

**balance feed**

Input value from an element or all elements in a classification that add to, or subtract from, a balance.

**balancing segment**

A chart of accounts segment used to automatically balance all journal entries for each value of this segment.

**band**

A specified range of values. For example, an age band defines a range of ages, such as 25 to 30, used to determine a person's eligibility.

**beneficiary**

A person or organization designated to receive benefits from a compensation plan on the death of the plan participant.

**benefits object hierarchy**

A structure that enables benefits that share similar attributes to be defined and managed efficiently. The four object types used to structure benefits offerings are programs, plan types, plans, and options.

**benefits offering**

Any of an organization's non salary components of employee benefits packages, such as health, savings, life insurance, recreation, goods, or services.

**BPEL**

Business Process Execution Language; a standard language for defining how to send XML messages to remote services, manipulate XML data structures, receive XML messages asynchronously from remote services, manage events and exceptions, define parallel sequences of execution, and undo parts of processes when exceptions occur.

**business function**

A business process, or an activity that can be performed by people working within a business unit and describes how a business unit is used.

**business object**

A resource in an enterprise database, such as an invoice or purchase order.

**business unit**

A unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy.

**calculation factor**

A data-driven rule for calculating a deduction or exemption.

**calculation method**

A calculation supported by a single fast formula. It is an optional component of a calculation factor.

**calendar event**

A period that signifies an event, such as a public holiday or a training course, that impacts worker availability.

**ceiling step**

Highest step within a grade that a worker may progress to.

**chart of accounts**

The account structure your organization uses to record transactions and maintain account balances.

**compensation objects**

Any of an organization's workforce compensation plans and components or individual compensation plans and options for allocating salary, bonus, stock options, and so on.

**competency**

Any measurable behavior required by an organization, job, or position that a person may demonstrate in the work context. A competency can be a piece of knowledge, a skill, an attitude, or an attribute.

**condition**

An XML filter or SQL predicate WHERE clause in a data security policy that specifies what portions of a database resource are secured.



**consolidation group**

A grouping of payroll runs within the same time period for the same payroll, for which you can run reporting, costing, and post-run processing. You can specify a default consolidation group for each payroll definition.

**content item**

An individual quality, skill, or qualification within a content type that you track in profiles.

**content library**

A repository of the content types and individual content items that can be associated with person profiles and profiles for workforce structures such as jobs and positions.

**content type**

An attribute such as a skill, quality, or qualification that is added to a profile.

**context**

A grouping of flexfield segments to store related information.

**context segment**

The flexfield segment used to store the context value. Each context value can have a different set of context-sensitive segments.

**context-sensitive segment**

A flexfield segment that may or may not appear depending upon a context such as other information that has been captured. Context-sensitive segments are custom attributes that apply to certain entity rows based on the value of the context segment.

**contingent worker**

A self-employed or agency-supplied worker. Contingent worker work relationships with legal employers are typically of a specified duration. Any person who has a contingent worker work relationship with a legal employer is a contingent worker.

**corporate rate type**

Rate you define to standardize rates used in conversion of one currency to another over a period of time. This rate is generally a standard market rate determined by senior financial management for use throughout the organization.

**cost center**

A unit of activity or group of employees used to assign costs for accounting purposes.

**cost organization**

A grouping of inventory organizations that indicates legal and financial ownership of inventory, and which establishes common costing and accounting policies.

**country holding company**

A legal entity that acts on behalf of several divisions within an enterprise, and is the legal employer in a country.

**data dimension**

A stripe of data accessed by a data role, such as the data controlled by a business unit.

**data instance set**

The set of human capital management (HCM) data, such as one or more persons, organizations, or payrolls, identified by an HCM security profile.

**data role**

A role for a defined set of data describing the job a user does within that defined set of data. A data role inherits job or abstract roles and grants entitlement to access data within a specific dimension of data based on data security policies. A type of enterprise role.

**data role template**

A template used to generate data roles by specifying which base roles to combine with which dimension values for a set of data security policies.

**data security**

The control of access to data. Data security controls what action a user can taken against which data.

**data security policy**

A grant of entitlement to a role on an object or attribute group for a given condition.

**database item**

An item of information in Fusion HCM that has special programming attached, enabling it to be located and retrieved for use in formulas.

**database resource**

An applications data object at the instance, instance set, or global level, which is secured by data security policies.

**deductible amount**

The aggregated contributions that are subject to a deduction after wage basis rules are applied.

**deduction card**

A mechanism for capturing values required for calculating payroll deductions at the level of a payroll statutory unit, tax reporting unit, or payroll relationship. At the payroll relationship level, this is called a personal deduction card.

**deduction component**

An individual deduction captured on a deduction card. Typically relates to a deduction element for which the deduction component creates an entry.

**deduction group**

A grouping of deduction cards for year-end processing.

**deduction range**

A table that holds the rate, amount, or other items used to calculate a deduction and the range of values to which they apply.

**department**

A division of a business enterprise dealing with a particular area of activity.

**dependent**

A person who has a personal relationship with a participant in a compensation plan whom the participant designates to receive coverage through the plan.

**derived factor**

Calculated eligibility criterion that changes over time, such as age or length of service.

**descriptive flexfield**

Customizable expansion space, such as fields used to capture additional descriptive information or attributes about an entity, such as customer cases. Information collection and storage may be configured to vary based on conditions or context.

**determinant**

A value that determines which reference data set will be used in a specific business context.

**determinant type**

Designates the field within transactional columns that controls how data is shared across organizations such as business unit, asset book, cost organization

or project unit. The type determines the reference data sets that would be used in a transaction.

**determinant type**

An additional and optional field within transactional columns (besides category and application) that is used to assign document sequences. The available determinant types are Business Unit, Ledger, Legal Entity, and Tax Registration.

**determinant value**

A value specific to the determinant type dimension of a document sequence. The determinant value is relevant in a document sequence assignment only if the document sequence has a determinant type. If Ledger is the determinant type for a document sequence, the determinant value is the specific ledger number whose documents are numbered by the document sequence.

**disability organization**

An organization with which employee disabilities are registered.

**division**

A business-oriented subdivision within an enterprise. Each division is organized to deliver products and services or address different markets.

**DML**

Data Manipulation Language, a family of languages used to insert, delete, and update data in a database.

**document category**

A high level grouping of person documents such as visas, licences, and medical certificates. Document subcategories provide further grouping of document categories.

**document sequence**

A unique number that is automatically or manually assigned to a created and saved document.

**document type**

A categorization of person documents that provides a set of options to control what document information to retain, who can access the documents, whether the documents require approval, and whether the documents are subject to expiry. A document type exists for a combination of document category and subcategory.

**duty role**

A group of function and data privileges representing one duty of a job. Duty roles are specific to applications, stored in the policy store, and shared within an Oracle Fusion Applications instance.

**educational establishment**

A school, college, university, or other learning institution.

**effective as-of date**

A date value used for filtering the search results in searches for date-effective objects. For any object that matches the search criteria, the search results include the physical record that is in effect on the specified effective as-of date.

**element**

Component in the calculation of a person's pay. An element may represent a compensation or benefit type, such as salary, wages, stock purchase plans, pension contributions, and medical insurance.

**element classification**

Provides various element controls, such as the order in which they are processed, the balances they feed, costing, and taxation. Primary element classifications and some secondary classifications are predefined. You are able to create other secondary classifications.

**element eligibility**

The association of an element to one or more components of a person's employment record. It establishes a person's eligibility for that element. Persons whose assignment components match the components of the element eligibility are eligible for the element.

**element entry**

The record controlling an employee's receipt of an element, including the period of time for which the employee receives the element and its value.

**element group**

Group of one or more elements, which you define for running various payroll processes, reports, or, for cost distribution purposes. Use element groups to limit the elements processed by a payroll batch process.

**element template**

Predefined questions asked when creating an element based on the element classifications selected. When the questionnaire is submitted, the template automatically generates the element and all associated balances, feeds, input values, formulas, and related elements required for payroll processing.

**eligibility profile**

A user-defined set of criteria used to determine whether a person qualifies for a benefits offering, variable rate or coverage, compensation plan, checklist task, or other object for which eligibility must be established.

**emergency contact**

Any of a person's contacts whom the enterprise can call in an emergency.

**employment terms**

A set of information about a nonworker's or employee's job, position, pay, compensation, working hours, and work location that all assignments associated with the employment terms inherit.

**enterprise**

An organization with one or more legal entities under common control.

**enterprise role**

Abstract, job, and data roles are shared across the enterprise. An enterprise role is an LDAP group. An enterprise role is propagated and synchronized across Oracle Fusion Middleware, where it is considered to be an external role or role not specifically defined within applications.

**entitlement**

Grants of access to functions and data. Oracle Fusion Middleware term for privilege.

**event trigger point**

The point within the life cycle of an HCM data object or process at which control can be taken and used to evaluate event conditions and potentially invoke event processing.

**extensible flexfield**

Customizable expansion space, as with descriptive flexfields, but able to capture multiple sets of information within a context and multiple contexts grouped to appear in a named region of a user interface page. Some extensible flexfields allow grouping contexts into categories.

**fast formula**

A simple way to write formulas using English words and basic mathematical functions. Formulas are generic expressions of calculations or comparisons you want to repeat with different input values.

**feature choice**

A selection you make when configuring offerings that modifies a setup task list, or a setup page, or both.

**fixed rate type**

Rate you set between two currencies that remains constant. For example, a rate set between the euro currency and each Economic and Monetary Union (EMU) currency during the conversion to the euro currency.

**flexfield**

Grouping of extensible data fields called segments, where each segment is an attribute added to an entity for capturing additional information.

**flexfield segment**

An extensible data field that represents an attribute on an entity and captures a single atomic value corresponding to a predefined, single extension column in the Oracle Fusion Applications database. A segment appears globally or based on a context of other captured information.

**free-form content type**

A content type that contains a code, name, and description only, and does not contain any properties until you add it to a profile type.

**FTE**

Full-time equivalent, such as .5 for half-time work.

**function security**

The control of access to a page or a specific widget or functionality within a page. Function security controls what a user can do.

**gallery**

A searchable collection of portraits that combines the functions of the person directory with corporate social networking and self-service applications for both workers and managers.

**generic organization hierarchy**

An organization hierarchy that includes organizations of all classifications.

**global area**

The region across the top of the user interface. It provides access to features and tools that are relevant to any page you are on.

**global name**

A person's name in a format and language that can be understood throughout a multinational enterprise.

**grade**

A component of the employment model that defines the level of compensation for a worker.

**grade ladder**

A hierarchy used to group grades and define their sequence.

**grade rate**

Used to define pay values for grades in a legislative data group.

**grade step**

A level of increment within a grade.

**Groovy**

An object-oriented programming language for the Java Platform as an alternative to the Java programming language. Groovy can also be used dynamically as a scripting language. For more information, see <http://groovy.codehaus.org>.

**gross accrual**

Amount of time that an employee has accumulated in an accrual plan.

**HCM**

Abbreviation for Human Capital Management.

**HCM data role**

A job role, such as benefits administrator, associated with specified instances of Oracle Fusion Human Capital Management (HCM) data, such as one or more positions or all persons in a department.

**HCM securing object**

An HCM object that secures access to both its own data and data in other, related objects. For example, access to a specified set of person records can allow access to data secured by person records, such as goal plans and evaluations.

**headcount**

A work measure recorded on an assignment. By default, the headcount of an organization is the total of primary assignments in primary work relationships.

**HR status**

Tracks worker's progress through the assignment, whether the assignment is active, suspended, or inactive.

**identity**

A person representing a worker, supplier, or customer.

**input value**

Values you define to hold information for an element entry. Formulas use input values to calculate and report run results for each element entry. An input value can also hold the amount to process through payroll without a formula.



**instance qualifier set**

A set of values that uniquely identifies multiple instances of the same profile item.

**interface table**

A database table used for transferring data between applications or from an external application or data file.

**inventory organization**

An organization that tracks inventory transactions and balances, and can manufacture or distribute products.

**item master**

A collection of data that describes items and their attributes recorded in a database file.

**job**

A generic role that is independent of any single department or location. For example, the jobs Manager and Consultant can occur in many departments.

**job family**

A group of jobs that have different but related functions, qualifications, and titles. For example, a trust analyst and an operations analyst may be grouped into the Analyst job family.

**job role**

A role for a specific job consisting of duties, such as an accounts payable manager or application implementation consultant. A type of enterprise role.

**key flexfield**

Configurable key consisting of multiple parts or segments, each of which may be meaningful individually or in combination with the others. Key flexfields are commonly implemented to represent part numbers and account numbers.

**key flexfield segment instance**

A single occurrence of a key flexfield segment in a key flexfield structure instance.

**key flexfield structure**

The arrangement of segments in a key flexfield. In some cases, multiple structures can be defined for a single key flexfield.

**key flexfield structure instance**

A single occurrence of a key flexfield structure that shares the same order of segments as every other instance of the key flexfield structure, but uses different value sets to validate the segments.

**LDAP**

Abbreviation for Lightweight Directory Access Protocol.

**legal authority**

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

**legal employer**

A legal entity that employs people.

**legal entity**

An entity is identified and given rights and responsibilities under commercial law, through the registration with the country's appropriate authority.

**legal jurisdiction**

A physical territory, such as a group of countries, single country, state, county, parish, or city, which comes under the purview of a legal authority.

**legal reporting unit**

The lowest level component of a legal structure that requires registrations. Used to group workers for the purpose of tax and social insurance reporting or represent a part of your enterprise with a specific statutory or tax reporting obligation.

**legislative data group**

A means of partitioning payroll and related data. At least one legislative data group is required for each country where the enterprise operates. Each legislative data group is associated with one or more payroll statutory units.

**line of business**

Set of one or more highly related products which service a particular customer transaction or business need. Refers to an internal corporate business unit.

**local name**

A person's name in a format and language that are readily understood by users in a single country but that may not be understood throughout a multinational enterprise.

**lookup code**

A value available for lookup within a lookup type such as the code BLUE within the lookup type COLORS.

**lookup type**

A set of lookup codes to be used together as a list of values on a field in the user interface.

**mainline**

A branch of data that serves as a single source of truth.

**managed person**

In Oracle Fusion Human Capital Management security, a person for whom the user can maintain some information. For example, line managers can maintain information about their direct and indirect reports, and workers can maintain information about themselves, their dependents, and their beneficiaries.

**model profile**

A collection of the work requirements and required skills and qualifications of a workforce structure, such as a job or position.

**natural account**

Categorizes account segment values by account type, asset, liability, expense, revenue, or equity, and sets posting, budgeting, and other options.

**net accrual**

Amount of time in an accrual plan that an enrolled employee can use to take leave.

**node**

A logical term that refers to the actual data in a specific data source such as a product-specific table or a storage entity that has been established by the tree management solution.

**nonworker**

A person, such as a volunteer or retiree, who is not engaged in the core businesses of the enterprise or legal employer but who may receive payments from a legal employer. Any person who has a nonworker work relationship with a legal employer is a nonworker.

**object group**

User-defined set of elements or people used to restrict which of these items to include in various processes and reports.

**offering**

A comprehensive grouping of business functions, such as Sales or Product Management, that is delivered as a unit to support one or more business processes.

**OWLCS**

Abbreviation for Oracle WebLogic Communication Services. Offers the TPCC service to Fusion applications and sets up the calls via SIP integration with the telephony network.

**participant**

Person other than the manager who provides feedback about a worker's performance or development upon request.

**participant feedback**

Responses to questions about an individual by people other than the direct manager or a designated performance manager of the individual. Participants provide responses on questionnaires that are part of the performance document and are saved as part of the official evaluation.

**party**

A physical entity, such as a person, organization or group, that the deploying company has an interest in tracking.

**payroll action parameters**

System-level information that controls aspects of payroll batch processes. The system reads values from the PAY\_ACTION\_PARAMETERS table on startup. If specific parameter values are not specified, the system may provide the appropriate defaults. The effects of setting values for specific parameters may be system wide.

**payroll default account**

The account used to store unallocated costs when the costing allocations do not total 100 percent, such as costs divided across several department cost centers. You can create the costing setup information for the default account at the department and payroll levels. To correct costing entries placed in a default account, correct or update the costing setup information, and then depending on the phase of the payroll, retry the payroll run or process a cost adjustment or retroactive costing to cost the unallocated amount to the appropriate account.

**payroll distribution group**

Allocates the costing result of a distributed element to each element in the distribution group. The allocation is proportionate to the amount that each element in the distribution group contributes to the total.

**payroll employment group**

Group of people to use in processing, data entry, and reporting in payroll.

**payroll flow**

An occurrence of a payroll flow pattern that you monitor from the Payroll Dashboard and manage from the Payroll Checklist work area. The data security for your role determines which flows you can submit and access.

**payroll flow checklist**

A sequence of automatic and manual flow tasks grouped into activities that accomplish different phases of the payroll process. Submitting a payroll flow generates a checklist that you use to monitor the payroll flow and manage its tasks.

**payroll flow pattern**

A series of tasks performed in a predefined order, which are grouped into activities that represent the phases of the payroll process. The flow pattern is used to generate a payroll flow.

**payroll flow task**

A payroll process or report, or manual work such as verifying results.

**payroll offset account**

Records the balancing entries for the payroll run result values costed for an element.

**payroll priority account**

The account used to cost payroll run results for element eligibility records. You create priority accounts on the **Costing of Elements** page. When payroll costs are calculated, the application bypasses the standard process for deriving the account, and uses the priority account. If you allocate a percentage of the costs to a priority account, the application calculates the allocation for the remaining percentage by using the standard costing process.

**payroll relationship**

Defines an association between a person and a payroll statutory unit based on payroll calculation and reporting requirements.

**payroll relationship type**

A predefined value used by the application to control how person records are grouped into payroll relationships. If a person has more than one payroll relationship type, for example, both an employee and a contingent worker in the same payroll statutory unit, there would be multiple payroll relationships for that person.

**payroll status**

Indicates if the assignment is processed by payroll. Valid values are Process and Do not Process.

**payroll statutory unit**

A legal entity registered to report payroll tax and social insurance. A legal employer can also be a payroll statutory unit, but a payroll statutory unit can represent multiple legal employers.

**payroll suspense account**

The account used to store costed payroll run results and prepayment results that produce invalid or incomplete account numbers. To correct costing entries placed in a suspense account, correct or update the costing setup information, and then depending on the phase of the payroll, retry the payroll run or process a cost adjustment or retroactive costing to cost the unallocated amount to the appropriate account.

**pending worker**

A person who will be hired or start a contingent worker placement and for whom you create a person record that is effective before the hire or start date.

**performance document**

The online document used to evaluate a worker for a specific time period. The document contains the content on which the worker can be evaluated, which could include goals and competencies. Workers and managers can provide ratings and comments if the document is configured to allow them to do so.

**person number**

A person ID that is unique in the enterprise, allocated automatically or manually, and valid throughout the enterprise for all of a person's work and person-to-person relationships.

**person type**

A subcategory of a system person type, which the enterprise can define. Person type is specified for a person at the employment-terms or assignment level.

**personal payment method**

Method of payment that is associated with a particular payroll relationship. When an administrator assigns a person to a new payroll, payments will use the default organization payment method for the new payroll until a personal payment method exists for that payroll relationship.

**personally identifiable information**

Any piece of information that can potentially be used to uniquely identify, contact, or locate a single person. Within the context of an enterprise, some PII data can be considered public, such as a person's name and work phone number, while other PII data is confidential, such as national identifier or passport number.

**PL/SQL**

Abbreviation for procedural structured queried language.

**portrait**

A selection of information about a worker or nonworker, including contact details, social connections, and activities and interests, that can be viewed and

edited. Both the amount and type of information and the available actions depend on the role of the portrait user.

**position**

A specific occurrence of one job, fixed within one department, also often one location. For example, the position Finance Manager is an instance of the job Manager in the Finance Department.

**primary ledger**

Main record-keeping ledger.

**primary work schedule**

Schedule that the application uses to determine the worker's availability.

**privilege**

A grant or entitlement of access to functions and data. A privilege is a single, real world action on a single business object.

**profile option**

User preferences and system configuration options consisting of a name and a value, that can be set at hierarchical levels of an enterprise. Also called a profile or user option.

**profile option level**

A level at which profile option values are defined. Site, product, and user are predefined levels.

**profile option level hierarchy**

The ordering of profile option levels. The order of the levels in the hierarchy determines which levels take precedence.

**profile option value**

The value portion of a profile option's name and value. A profile option may have multiple values set at different levels, such as site or user.

**profile type**

A template that defines the content sections of a profile, role access for each section, and whether the profile is for a person, or for a workforce structure such as a job or position.

**project expenditure organization**

An organization that can incur expenditures and hold financial plans for projects.

**PSTN**

Abbreviation for public switched telephone network which is the network of the world's public circuit-switched telephone networks.

**public person**

In Oracle Fusion Human Capital Management security, a person for whom some basic information is publicly available. For example, users typically access the contact details of public persons, such as phone numbers and locations, using the person gallery.

**question library**

A central repository of reusable questions that are available to add to questionnaires.

**questionnaire**

A set of questions that respondents are asked to complete that are presented in a specific order and format. It can include open-ended question or items with selection lists.

**rating model**

A scale used to measure the performance and proficiency of workers.

**reduced deductible amount**

The final deductible amount after all exemptions are subtracted.

**reference data**

Data in application tables that is not transactional and not high-volume such as sales methods, transaction types, or payment terms, and can be shared and used across organizational boundaries.

**reference data set**

Contains reference data that can be shared across a number of business units or other determinant types. A set supports common administration of that reference data.

**reference group**

A logical grouping of tables that correspond to logical entities such as payment terms defined across multiple tables or views. Grouping establishes common partitioning requirements across the entities causing them to share the same set assignments.

**registration**

The record of a party's identity related details with the appropriate government or legal authorities for the purpose of claiming and ensuring legal and or commercial rights and responsibilities.



**reporting establishment**

An organization used in the production of human resources (HR) reports that are required by government agencies.

**retroactive process**

A process that recalculates the amount to pay a person in the current period to account for retrospective changes that occurred in previous payroll periods.

**role**

Controls access to application functions and data.

**role deprovisioning**

The automatic or manual removal of an abstract role, a job role, or a data role from a user.

**role hierarchy**

Structure of roles to reflect an organization's lines of authority and responsibility. In a role hierarchy, a parent role inherits all the entitlement of one or more child roles.

**role mapping**

A relationship between one or more job roles, abstract roles, and data roles and one or more conditions. Depending on role-mapping options, the role can be provisioned to or by users with at least one assignment that matches the conditions in the role mapping.

**role provisioning**

The automatic or manual allocation of an abstract role, a job role, or a data role to a user.

**salary basis**

A set of characteristics associated with a worker's base pay that identifies the payroll details used to pay base earnings, the period of time in which base pay is quoted, the factor used to annualize base pay, any components used to attribute base pay adjustments to different reasons, and any associated grade rate for salary validation.

**salary component**

Change reasons that enable itemization of salary adjustments by entering amounts or percentages for one or more components, such as merit or cost of living adjustment.

**sandbox**

A runtime session that commits changes out of reach of mainline users.

**security profile**

A set of criteria that identifies one or more human capital management (HCM) objects of a single type for the purposes of securing access to those objects. Security profiles can be defined for persons, organizations, positions, countries, LDGs, document types, payrolls, payroll flows, and workforce business processes.

**security reference implementation**

Predefined function and data security in Oracle Fusion Applications, including role based access control, and policies that protect functions, data, and segregation of duties. The reference implementation supports identity management, access provisioning, and security enforcement across the tools, data transformations, access methods, and the information life cycle of an enterprise.

**segregation of duties**

An internal control to prevent a single individual from performing two or more phases of a business transaction or operation that could result in fraud.

**set**

Reference data that is organized into groups appropriate to organizational entities, to enable reference data sharing.

**set enabled**

An entity, such as a lookup, customer, location, organization, or document attachment, that is allowed to participate in reference data sharing by drawing on the data of a reference data set.

**SOA**

Abbreviation for service-oriented architecture.

**SOA**

Service-oriented architecture, a design methodology aimed at maximizing the reuse of application services.

**spot rate type**

Rate you enter to perform conversion based on this rate as of a specific date. This rate applies to the immediate delivery of a currency.

**SQL predicate**

A type of condition using SQL to constrain the data secured by a data security policy.

**system person type**

A fixed name that the application uses to identify a group of people.

**tax reporting unit**

A legal entity that groups workers for the purpose of tax and social insurance reporting.

**territory**

A legally distinct region that is used in the country field of an address.

**transfer**

The movement of a person within the same legal employer.

**tree**

Information or data organized into a hierarchy with one or more root nodes connected to branches of nodes. A tree must have a structure where each node corresponds to data from one or more data sources.

**tree node**

Corresponds to a primary key in a view object of data.

**tree structure**

Characteristics applied to trees, such as what data to include or how the tree is versioned and accessed.

**tree version**

An instance of a tree. If a tree is associated with a reference data set, all versions belong to one set. Includes life cycle elements such as start and end date and a status indicator whether the tree is active or not.

**unit of measure**

A division of quantity that is adopted as a standard of measurement.

**user rate type**

Rate you enter at journal entry time to convert foreign currency transactions to your functional currency.

**user-defined criteria**

Custom factors used to determine eligibility for objects such as benefits offerings and rates, compensation plans, and checklist tasks.

**user-defined table**

Structures of rows and columns that maintain date-tracked lists of values. The values are stored as cells for specific row and column combinations.

**value set**

A set of valid values against which values entered by an end user are validated. The set may be tree structured (hierarchical).

**variable coverage profile**

A set of attributes that define the coverage amount for a benefit offering that varies based on one or more factors.

**variable rate profile**

A set of attributes that define the cost of a benefit offering that varies based on one or more factors.

**wage basis rule**

Indicates whether a classification of earnings should be considered when calculating the basis for a deduction. Also referred to as a taxability rule.

**work relationship**

An association between a person and a legal employer, where the worker type determines whether the relationship is a nonworker, contingent worker, or employee work relationship.

**work relationship group**

Group of people to use in processing, data entry, and reporting.

**work schedule exception**

An event that impacts the normal working pattern in a work schedule.

**worker type**

A classification selected on a person's work relationship, which can be employee, contingent worker, pending worker, or nonworker.

**workflow**

An automated process in which tasks are passed from a user, a group of users, or the application to another for consideration or action. The tasks are routed in a logical sequence to achieve an end result.

**workforce business process**

A defined sequence of tasks, registered for the enterprise, that delivers a major business goal. The tasks may be allocated to multiple roles across multiple products.

**XML filter**

A type of condition using XML to constrain the data secured by a data security policy.