Oracle Global Human Resources Cloud
Implementing Workforce Deployment
This guide also applies to on-premise implementations

Release 8

April 2014
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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.

Note

If you don't see any help icons on your page, then click the Show Help icon button in the global area. However, not all pages have help icons.

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. To access the guides, go to any page in Oracle Fusion Applications Help and select Documentation Library from the Navigator menu.

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.

<table>
<thead>
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<th>Guide</th>
<th>Intended Audience</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Common User Guide</td>
<td>All users</td>
<td>Explains tasks performed by most users.</td>
</tr>
<tr>
<td>Common Implementation Guide</td>
<td>Implementors</td>
<td>Explains tasks within the Define Common Applications Configuration task list, which is included in all offerings.</td>
</tr>
<tr>
<td>Functional Setup Manager User Guide</td>
<td>Implementors</td>
<td>Explains how to use Oracle Fusion Functional Setup Manager to plan, manage, and track your implementation projects, migrate setup data, and validate implementations.</td>
</tr>
<tr>
<td>Technical Guides</td>
<td>System administrators, application developers, and technical members of implementation teams</td>
<td>Explain how to install, patch, administer, and customize Oracle Fusion Applications.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> Limited content applicable to Oracle Cloud implementations.</td>
</tr>
</tbody>
</table>

For other guides, 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 details on 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 Oracle Enterprise Repository 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.

- 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. You can use Send Feedback to Oracle from the Settings and Actions menu in Oracle Fusion Applications Help.
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 touchpoints, 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 optional functional areas are available to implement.

Next you create one or more implementation projects for the offerings and functional areas 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 optional functional areas, 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
- Task Lists for Payroll and Payroll Elements
  - Define Payroll Legislations
  - Define Payroll
  - Define Elements, Balances, and Formulas
  - Define Security for Payroll
- Define Absences
- Define Time and Labor
- Define Transactional Business Intelligence Configuration
• Define Predictive Models for Human Capital Management
• Define Extensions for Workforce Deployment

**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.

**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.

**Task Lists for Payroll and Payroll Elements**
The following table describes the task lists.

<table>
<thead>
<tr>
<th>Task List</th>
<th>Description</th>
</tr>
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<tr>
<td>Define Payroll Legislations</td>
<td>Creating payroll rules for legislations not initially provided by Oracle.</td>
</tr>
<tr>
<td>Define Payroll</td>
<td>Configuring rules for payroll processing, if you use Oracle Fusion Global Payroll.</td>
</tr>
<tr>
<td>Define Elements, Balances, and Formulas</td>
<td>Creating elements, balances, and formulas for non-payroll purposes, such as compensation and HR management only, or for transferring data to a third-party payroll provider. If you selected the Payroll functional area for the offering, you can access the same tasks and more from the Define Payroll task list instead.</td>
</tr>
<tr>
<td>Define Security for Payroll</td>
<td>Managing the data roles and security profiles you require for managing payrolls and payroll flows.</td>
</tr>
</tbody>
</table>

**Define Common Workforce Management Configuration**
This task list contains tasks to configure common structures used for reporting worked and absence time, accruing time, and approving time cards and absences.

**Define Absences**
This task list contains tasks to manage the definitions required for recording and processing absences and absence plans, such as qualification plans and accrual plans.

**Define Time and Labor**
Use this task list to create configurable time entry displays, validations, and calculation rules for entry, approval, and transfer of time to payroll and projects time consumers.
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 set up one or more initial users using the super user that was created during installation and provisioning of the Oracle Fusion Applications environment, or using the initial administrator user provided by Oracle for Oracle Cloud Application Services implementations. 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. If you are not starting an Oracle Cloud Application Services implementation, sign into Oracle Identity Manager (OIM) as the OIM Administration users and provision the IT Security Manager job role with roles for user and role management. This enables the super user account, which is provisioned with the IT Security Manager job role, to create implementation users.

2. For starting all implementations, sign in as the user with initial access: either the Oracle Fusion Applications installation super user or the initial Oracle Cloud Application Services administrator user.

3. Select an offering to implement, and generate the setup tasks needed to implement the offering.

4. Perform the following security tasks:
   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.

5. 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 objects.

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 for comparable Oracle Fusion applications across many instances.

- **Comprehensive Reporting**
  A set of built-in reports helps to analyze, validate and audit configurations, implementations, and setup data of Oracle 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.
- Achieve 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.

The following documentation resources are 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 functional areas. You create a project by selecting the offerings and functional areas 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 functional areas that are configured for implementation. Implementation managers specify which of those offerings and functional areas 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 functional area, and one or more or features.

**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, functional areas 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 functional areas 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 functional areas 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.
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.

**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.

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

**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.
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
- Defining 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.

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.

<table>
<thead>
<tr>
<th>Decision</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to sign in to Oracle Fusion Applications for the first time</td>
<td>Use the super user account that was created when installing and provisioning Oracle Fusion Applications (for example, FAADMIN).</td>
</tr>
<tr>
<td>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</td>
<td>Perform the Run User and Roles Synchronization Process task.</td>
</tr>
<tr>
<td>How to create a first implementation user</td>
<td>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.</td>
</tr>
<tr>
<td>How to establish security administration users</td>
<td>Define an IT security manager user provisioned with the IT Security Manager job role.</td>
</tr>
<tr>
<td>How to establish an implementation user with access to set up enterprise structures</td>
<td>Define an implementation user provisioned with the Application Implementation Consultant job role.</td>
</tr>
</tbody>
</table>

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), or the initial administrator user provided by Oracle for Oracle Cloud Application Services, 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 Retrieve Latest LDAP Changes process takes some time to complete the first time it is run.

3. Monitor completion of the Retrieve Latest LDAP Changes 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:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last name</td>
<td>&lt;any valid string&gt;</td>
<td>Smith</td>
</tr>
<tr>
<td>Organization</td>
<td>Xellerate Users</td>
<td>N/A</td>
</tr>
<tr>
<td>User type</td>
<td>Non Worker</td>
<td>N/A</td>
</tr>
<tr>
<td>User login</td>
<td>&lt;any valid string&gt;</td>
<td>IT_SECURITY_MANAGER</td>
</tr>
<tr>
<td>Login password</td>
<td>&lt;any valid string&gt;</td>
<td>SeKur1TyPa$$w0Rd</td>
</tr>
</tbody>
</table>

**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 to set up all enterprise structures.
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.

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

You can specify the real time address cleansing level for each country by choosing either 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 the application does not find a matching address it 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.

**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.

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.

**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 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 comprises all geography related data, including geography types and geographies.

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.

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**Note**

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

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**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.

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:

<table>
<thead>
<tr>
<th>File-Based Import Entities</th>
<th>Interface Tables</th>
<th>Destination Tables</th>
<th>Application Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeography</td>
<td>HZ_IMP_GEOGRAPHIES</td>
<td>HZ_GEOGRAPHIES</td>
<td>Geography</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ_GEOGRAPHY_IDENTIFIERS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ_GEOGRAPHY_TYPE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HZ_HIERARCHY_NODE</td>
<td></td>
</tr>
</tbody>
</table>

Importing Country Structures Using File-Based Import: Explained

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

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

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

Consider the following questions when importing your data:

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

Comparing Business Object Structures

You must understand how your country structure data corresponds with the data in Oracle Sales Cloud in order to be able to map your legacy data to the data needed by Oracle Sales Cloud. First, you must understand how Oracle Sales Cloud represents the structure of the data for a country structure.

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

To facilitate the import of country structures, Oracle Sales Cloud incorporates the structure of the country structure into import objects. The import object for country structures is GeoStructureLevel.

**Comparing Business Object Data**

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

A good understanding of the attribute details of the import objects is critical to preparing your import data. For information about the Oracle Sales Cloud attributes, see the Oracle Enterprise Repository. The reference files contain descriptions, logic used to choose default values, and validation information for each of the Oracle Sales Cloud attributes. The validation information includes the navigation to the task where you can define values in Oracle Sales Cloud. For example, if you have values in your data that correlate to a choice list in Oracle Sales Cloud, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values. For additional information, including a list of reference file names and locations that you need to complete this task, see the following table.

<table>
<thead>
<tr>
<th>Import Object</th>
<th>Related Import Object Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country Structure</td>
<td>Country Structure Import Objects: How They Work Together</td>
</tr>
</tbody>
</table>

**Extensible Attributes**

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

**Importing Country Structures Using File-Based Data Import**

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

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

**Verifying Your Imported Data**

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

**Country Structure Import Objects: How They Work Together**

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

- Target import object concepts
- Target objects for the Country Structure import object
- Target import object attributes
- Target object attribute reference guide files

**Target Import Object Concepts**

The Country Structure import object is used to import a country structure hierarchy, including details, such as geography type, geography type name, parent geography type, geography level numbers, and so on. To map the source data in your import file to the target attributes in Oracle Sales Cloud, you must understand how the target objects are related and what attributes are included in each target object.

**Country Structure Target Import Objects**

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

**Target Import Objects Attributes**

You must compare the attributes that you want to import with the target object attributes that are available and their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use an Oracle Enterprise Repository reference guide, which is available for each target import object. The reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or setup tasks that are required.

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

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

Target Import Objects Attributes Resources
To access the reference guide files for the country code's target import objects, see the File-Based Data Import assets in Oracle Enterprise Repository (http://fusionappssoer.oracle.com).

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

The following table lists the reference guide files that are available from the Documentation tab for the Country Code File-Based Data Import asset.

<table>
<thead>
<tr>
<th>Target Import Object</th>
<th>Description</th>
<th>Reference Guide File Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeoStructureLevel</td>
<td>Contains information that specifies a country’s geography structure.</td>
<td>HZ_IMP_GEO_STRUCTURE _LEVELS_Reference</td>
</tr>
<tr>
<td></td>
<td>Sample attributes: GeographyType, GeographyTypeName, LevelNumber, and ParentGeographyType.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reference attribute: CountryCode</td>
<td></td>
</tr>
</tbody>
</table>

Importing Geographies Using File-Based Import: Explained

This topic describes the tasks you must perform to import geography information. A geography is any region with a boundary around it, regardless of its size. It might be a state, a country, a city, a county, or a ward. You must create or import geographies before you can associate them with custom zones and addresses.

Consider the following questions when importing your data:

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

Comparing Business Object Structures

You must understand how your geography data corresponds with the data in Oracle Sales Cloud in order to be able to map your legacy data to the data
needed by Oracle Sales Cloud. First, you must understand how Oracle Sales Cloud represents the structure of the data for a geography.

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

**Import Objects for the Geography**

To facilitate the import of geographies, Oracle Sales Cloud incorporates the structure of the geography into import objects. The import object for the geography is ImpGeography.

**Comparing Business Object Data**

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

A good understanding of the attribute details of the import objects is critical to preparing your import data. For information about the Oracle Sales Cloud attributes, see the Oracle Enterprise Repository. The reference guide files contain descriptions, logic used to choose default values, and validation information for each import object attribute. The validation information includes the navigation to the task where you can define values in Oracle Sales Cloud. For example, if you have values in your data that correlate to a choice list in Oracle Sales Cloud, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values. For additional information, including a list of reference file names and locations that you need to complete this task, see the following table.

<table>
<thead>
<tr>
<th>Import Object</th>
<th>Related Import Object Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeography</td>
<td>Geography Import Objects: How They Work Together</td>
</tr>
</tbody>
</table>

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

**Extensible Attributes**

Oracle Sales Cloud does not support extensible attributes for geographies. You can only import data for attributes provided by Oracle Sales Cloud.

**Importing Geographies Using File-Based Data Import**

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

The Define File-Based Data Import Setup and Maintenance task list includes the tasks needed to configure the import objects, to create source-file mappings,
and to schedule the import activities. You submit file-based import activities for each import object. When creating a new geography, you import the Geography object. You must be assigned the Master Data Management Administrator job role to access and submit the import activities for geographies. When importing geography information, you must provide the parent reference information for all parent levels for the entity.

Verifying Your Imported Data

Oracle Sales Cloud provides File-Based Import activity reports, which can be used to verify imported data. Users with the Master Data Management Administrator job role can also navigate to the Manage Geographies work area to view the imported geographies.

Geography Import Objects: How They Work Together

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

This topic introduces the following:

- Target import object concepts
- Target objects for the Geography import object
- Target import object attributes
- Target import object attribute reference guide files

Target Import Object Concepts

The Geography import object is used to import geography hierarchy information to create or update the geography data of a country. To map the source data in your import file to the target attributes in Oracle Sales Cloud, you must understand how the target objects are related and what attributes are included in each target object.

Geography Target Import Objects

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

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

Note

Before you import geography data for a country, you must define the country’s geography structure.

Target Import Objects Attributes

You must compare the attributes that you want to import with the target object attributes that are available and their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use an Oracle Enterprise Repository reference guide, which is available for each target import object.
object. The reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or setup tasks that are required.

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

**Target Import Objects Attributes Resources**

To access the reference guide files for the geography's target import objects, see the File-Based Data Import assets in Oracle Enterprise Repository (http://fusionappsoer.oracle.com).

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

The following table lists the reference guide files that are available from the Documentation tab for the Geography File-Based Data Import asset.

<table>
<thead>
<tr>
<th>Target Import Object</th>
<th>Description</th>
<th>Attribute Reference Guide File Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeography</td>
<td>Contains information that captures a country’s geography hierarchy details. Sample attributes: CountryCode, GeoDataProvider, GeographyType, PrimaryGeographyCode, PrimaryGeographyCodeType, and PrimaryGeographyName. Reference attribute: CountryCode</td>
<td>HZ_IMP_GEOGRAPHIES_T_Reference</td>
</tr>
</tbody>
</table>

**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 real time address validation and tax purposes.

The following table summarizes the key decisions that you need to make in this scenario:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of object are you importing?</td>
<td>Geography</td>
</tr>
<tr>
<td>What file type are you using for your source data?</td>
<td>Text file</td>
</tr>
</tbody>
</table>
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 Sales Cloud? | 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 activate 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 be longer than 18 characters. You could structure your geography source data as follows:

<table>
<thead>
<tr>
<th>Geography Level</th>
<th>Name</th>
<th>Source ID</th>
<th>Parent Source ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Country)</td>
<td>US</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2 (State)</td>
<td>CA</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>3 (County)</td>
<td>Alameda</td>
<td>111</td>
<td>11</td>
</tr>
<tr>
<td>4 (City)</td>
<td>Pleasanton</td>
<td>1111</td>
<td>111</td>
</tr>
</tbody>
</table>
Create and Schedule the Import Activity

You create an import activity, enter the import details, and schedule the import. An import activity definition provides instructions for the import processing, including details related to selecting the source file, or file location; mapping fields from the source file to the Oracle Sales Cloud database 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Master Reference Geographies</td>
</tr>
<tr>
<td>Object</td>
<td>Geography</td>
</tr>
<tr>
<td>File Type</td>
<td>Text File</td>
</tr>
<tr>
<td>File Selection</td>
<td>Specific file</td>
</tr>
<tr>
<td>Upload From</td>
<td>Desktop</td>
</tr>
<tr>
<td>File Name</td>
<td>Choose relevant file from desktop</td>
</tr>
<tr>
<td>Data Type</td>
<td>Comma separated</td>
</tr>
</tbody>
</table>

**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 Sales Cloud database object and attribute, as shown in this example:

<table>
<thead>
<tr>
<th>Column Header</th>
<th>Example Value</th>
<th>Ignore</th>
<th>Object</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Geography Name</td>
<td>Primary Geography Name</td>
<td>United States</td>
<td>Imp Geography</td>
<td>Primary Geography Name</td>
</tr>
<tr>
<td>Country Code</td>
<td>US</td>
<td>No</td>
<td>Imp Geography</td>
<td>Country Code</td>
</tr>
<tr>
<td>Record Type Code</td>
<td>0</td>
<td>Yes</td>
<td>Imp Geography</td>
<td>Record Type Code</td>
</tr>
<tr>
<td>Source ID</td>
<td>10265</td>
<td>No</td>
<td>Imp Geography</td>
<td>Source ID</td>
</tr>
</tbody>
</table>
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 Sales Cloud database 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 as soon as you activate it. Instead of immediately importing the data, you can choose a date and time to start the import. You can also specify 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, verify your import details in the Import Details, File Details, Import Options, and Schedule sections. Update the import details if required by navigating to the previous screens using the Back link.
2. Once you are sure your import details are correct, 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 Sales Cloud applications instance, and then after the territory geography zones are defined you can export the territory zones and import them into another Oracle Sales Cloud instance.

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

1. Import the master reference geography data into the Oracle Sales Cloud.
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 Sales Cloud 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 Sales Cloud 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 Sales Cloud instance before you import the configuration package.

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

This example shows how to configure the geography structure, hierarchy, and validation for a country geography, using the United Kingdom country geography as an illustration.
The following table summarizes the key decisions for this scenario.

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

Add the County and Post Town geography types to the geography structure. Next, 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**

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

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

**Defining the geography hierarchy**

To begin creating the geography hierarchy for the United Kingdom, 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. Define the geography mapping and validation for the United Kingdom default address style format. Then map the geography types to attributes, enable the geography types for Lists of Values and Geography validation, and set the geography validation level.

1. On the Manage Geographies page, click Validation Defined.

2. 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.

**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 ledgers, 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.

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

**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 uncheck 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.

<table>
<thead>
<tr>
<th>Currency Selected</th>
<th>Rate Type Selected</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>Corporate</td>
<td>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 fluctuates slightly over the month.</td>
</tr>
<tr>
<td>MXP</td>
<td>Spot</td>
<td>Entered a periodic type of transaction. Your company enters daily rates each day for MXP because this currency is unstable and fluctuates.</td>
</tr>
<tr>
<td>HKD</td>
<td>User</td>
<td>Entered a one time transaction. Your company does not maintain daily rates in HKD.</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Rate Type</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot</td>
<td>For currencies with fluctuating conversion rates or when exact currency conversion is needed.</td>
</tr>
<tr>
<td>Corporate</td>
<td>For establishment of a standard rate across your organization for a stable currency.</td>
</tr>
<tr>
<td>User</td>
<td>For infrequent entries where your daily rates for the entered foreign currency are not set up.</td>
</tr>
<tr>
<td>Fixed</td>
<td>For rates where the conversion is constant between two currencies.</td>
</tr>
</tbody>
</table>

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.
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?

Global Enterprise Structure Model

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
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 Oracle Sales Cloud implementations do not require recording of accounting transactions and therefore, do not require implementation of a ledger.

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

**Essbase Character and Word Limitations**

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

<table>
<thead>
<tr>
<th>Oracle Fusion General Ledger Configuration</th>
<th>Maps to Essbase As:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart of Account Name</td>
<td>Cube Name</td>
</tr>
<tr>
<td>Chart of Account Segment Name</td>
<td>Dimension Name</td>
</tr>
<tr>
<td>Chart of Accounts Segment Value</td>
<td>Dimension Member Name</td>
</tr>
<tr>
<td>Chart of Accounts Segment Value Description</td>
<td>Alias for Member</td>
</tr>
<tr>
<td>Tree and Tree Version Name</td>
<td>Dimension Member Name</td>
</tr>
<tr>
<td>Primary Ledger Name</td>
<td>Dimension Member Name in Ledger Dimension</td>
</tr>
<tr>
<td>Secondary Ledger Name</td>
<td>Dimension Member Name in Ledger Dimension</td>
</tr>
<tr>
<td>Reporting Currency Name</td>
<td>Dimension Member Name in Ledger Dimension</td>
</tr>
<tr>
<td>Ledger Set Name</td>
<td>Dimension Member Name in Ledger Dimension</td>
</tr>
<tr>
<td>Accounting Calendar Period Names</td>
<td>Dimension Member Name in Accounting Period Name</td>
</tr>
<tr>
<td>Scenario Name Defined in Seeded Value Set Called Accounting Scenario</td>
<td>Dimension Member Name in Scenario Dimension</td>
</tr>
</tbody>
</table>

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

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

The following is a list of characters that are restricted and can not be used in dimension, member, or alias names.

<table>
<thead>
<tr>
<th>Character</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>@</td>
<td>at sign</td>
</tr>
<tr>
<td>\</td>
<td>backslash</td>
</tr>
<tr>
<td>,</td>
<td>comma</td>
</tr>
<tr>
<td>-</td>
<td>dash, hyphen, or minus sign</td>
</tr>
<tr>
<td>=</td>
<td>equal sign</td>
</tr>
<tr>
<td>&lt;</td>
<td>less than sign</td>
</tr>
<tr>
<td>()</td>
<td>parentheses</td>
</tr>
<tr>
<td>.</td>
<td>period</td>
</tr>
<tr>
<td>+</td>
<td>plus sign</td>
</tr>
<tr>
<td>'</td>
<td>single quotation mark</td>
</tr>
<tr>
<td>_</td>
<td>underscore</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other Restrictions

- Do not place spaces at the beginning or end of names. Essbase ignores such spaces.
- Do not use these types of words as dimension or member names:
  - Calculation script commands, operators, and keywords.
  - Report writer commands.
  - Function names and function arguments.
  - Names of other dimensions and members (unless the member is shared).
  - Generation names, level names, and aliases in the database.
  - Any of these words in the table below:

<table>
<thead>
<tr>
<th>List 1</th>
<th>List 2</th>
<th>List 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>AND</td>
<td>ASSIGN</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>CALC</td>
<td>CALCMBR</td>
</tr>
<tr>
<td>COPYFORWARD</td>
<td>CROSSDIM</td>
<td>CURMBRNAME</td>
</tr>
<tr>
<td>DIM</td>
<td>DIMNAME</td>
<td>DIV</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>EMPTYPARM</td>
<td>EQ</td>
</tr>
<tr>
<td>EQOP</td>
<td>EXCEPT</td>
<td>EXP</td>
</tr>
<tr>
<td>EXPROR</td>
<td>FLOAT</td>
<td>FUNCTION</td>
</tr>
<tr>
<td>GE</td>
<td>GEN</td>
<td>GENRANGE</td>
</tr>
</tbody>
</table>
### 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.

**Resulting Enterprise Configuration**

Based on this analysis, InFusion requires an enterprise with multiple divisions, ledgers, legal employers, payroll statutory units, tax reporting units, legislative data groups, departments, cost centers, and business units. This figure illustrates the enterprise configuration that results from the analysis of InFusion Corporation.

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

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

Rolling Back an Enterprise Structure Configuration: Explained

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

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

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

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.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create location?</td>
<td>The financial services company is based in Frankfurt as are the departments, so you need to create only one location.</td>
</tr>
<tr>
<td>Create separate division?</td>
<td>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.</td>
</tr>
<tr>
<td>Create business unit?</td>
<td>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.</td>
</tr>
<tr>
<td>How many departments?</td>
<td>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.</td>
</tr>
<tr>
<td>How many cost centers?</td>
<td>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.</td>
</tr>
<tr>
<td>How many legal entities?</td>
<td>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. 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.</td>
</tr>
</tbody>
</table>

**Note**

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.
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.

**Resulting InFusion Enterprise Structure**

Based on the analysis, you must create the following:

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

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

**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.

<table>
<thead>
<tr>
<th>Country</th>
<th>Enterprise</th>
<th>InFusion Lighting</th>
<th>InFusion Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>US</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>UK</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>India</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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.

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.

Note

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

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.

![Diagram of enterprise structure](image)

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

<table>
<thead>
<tr>
<th>Business Unit Level</th>
<th>Suggested Business Units</th>
</tr>
</thead>
</table>
| Country                              | • US  
• UK  
• Japan  
• India                                         |
| Country and Division                 | • InFusion Lighting: Japan  
• InFusion Lighting: US  
• Infusion Security: UK  
• Infusion Security: India                     |
| Country and business function        | • Sales: Japan  
• Marketing: Japan  
• Sales: US  
• Sales: UK  
• Marketing: India  
• Sales: India |
| Division | • InFusion Lighting  
|         | • InFusion Security |
| Division and Legal Entity | • InFusion Lighting: Japan  
|         | • InFusion Lighting: US  
|         | • Infusion Security: UK  
|         | • Infusion Security: India |
| Division and Business Function | • InFusion Lighting, Sales  
|         | • InFusion Lighting, Marketing  
|         | • InFusion Security, Sales  
|         | • InFusion Security, Marketing |
| Business Function | • Sales  
|         | • Marketing |
| Legal Entity | • Legal Entity: Japan  
|         | • Legal Entity: US  
|         | • Legal Entity: UK  
|         | • Legal Entity India |
| Legal Entity and Business Function | • Legal Entity: Japan, Sales  
|         | • Legal Entity: Japan, Marketing  
|         | • Legal Entity: US, Sales  
|         | • Legal Entity: UK, Sales  
|         | • Legal Entity India, Marketing  
|         | • Legal Entity India, Sales |

**Manually Creating Business Units**

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

**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:

<table>
<thead>
<tr>
<th>Business Unit</th>
<th>Default Set Assignment</th>
<th>Set Assignment Overrides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales_Japan</td>
<td>Sales_Japan_Set for grades, departments, and locations</td>
<td>Jobs set for jobs</td>
</tr>
<tr>
<td>Marketing_Japan</td>
<td>Mktg_Japan_Set for grades, departments, and locations</td>
<td>None</td>
</tr>
<tr>
<td>Sales_US</td>
<td>Sales_US_Set for grades, departments, and locations</td>
<td>Jobs set for jobs</td>
</tr>
<tr>
<td>Sales_UK</td>
<td>Sales_UK_Set for grades, departments, and locations</td>
<td>Jobs set for jobs</td>
</tr>
<tr>
<td>Marketing_India</td>
<td>Mktg_India_Set for grades, departments, and locations</td>
<td>None</td>
</tr>
<tr>
<td>Sales_India</td>
<td>Sales_India_Set for grades, departments, and locations</td>
<td>Jobs set for jobs</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Primary Industry</th>
<th>Workforce Setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>Positions</td>
</tr>
<tr>
<td>Utilities</td>
<td>Positions</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Positions</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>Positions</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>Positions</td>
</tr>
<tr>
<td>Educational Services</td>
<td>Positions</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>Positions</td>
</tr>
<tr>
<td>Agriculture, Forestry, Fishing, and Hunting</td>
<td>Jobs</td>
</tr>
<tr>
<td>Construction</td>
<td>Jobs</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>Jobs</td>
</tr>
<tr>
<td>Information</td>
<td>Jobs</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>Jobs</td>
</tr>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>Jobs</td>
</tr>
<tr>
<td>Management of Companies and Enterprises</td>
<td>Jobs</td>
</tr>
<tr>
<td>Administrative and Support and Waste Management and Remediation Services</td>
<td>Jobs</td>
</tr>
<tr>
<td>Arts, Entertainment, and Recreation</td>
<td>Jobs</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>Jobs</td>
</tr>
<tr>
<td>Other Services (Except Public Administration)</td>
<td>Jobs</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Industry</th>
<th>We always replace employees by rehiring to same role</th>
<th>We replace the head count, but the manager can use the head count in a different job</th>
<th>We rehire to the same position, but the manager can request a reallocation of budget to a different post</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.)</td>
<td>Positions</td>
<td>Jobs</td>
<td>Jobs</td>
</tr>
<tr>
<td>Controlled (An industry that is highly structured in which all aspects of work and remuneration are well organized and regulated.)</td>
<td>Positions</td>
<td>Positions</td>
<td>Positions</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Positions</td>
<td>Jobs</td>
<td>Positions</td>
</tr>
<tr>
<td>Retail</td>
<td>Positions</td>
<td>Jobs</td>
<td>Positions</td>
</tr>
<tr>
<td>Education</td>
<td>Positions</td>
<td>Jobs</td>
<td>Positions</td>
</tr>
<tr>
<td>Other</td>
<td>Positions</td>
<td>Jobs</td>
<td>Jobs</td>
</tr>
</tbody>
</table>

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.

**Note**

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

**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.

<table>
<thead>
<tr>
<th>Application Name</th>
<th>Reference Data Object</th>
<th>Method of Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading Community Model</td>
<td>Customer Account Relationship</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Application</td>
<td>Component</td>
<td>Assignment Details</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Trading Community Model</td>
<td>Customer Account Site</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Trading Community Model</td>
<td>Sales Person</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Opportunity Management</td>
<td>Sales Method Group</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Work Management</td>
<td>Assessment Templates</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Enterprise Contracts</td>
<td>Contract Types</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Sales</td>
<td>Sales Method</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Common Components</td>
<td>Activity Templates</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Payables</td>
<td>Payment Terms</td>
<td>Assignment to multiple sets, no common values allowed</td>
</tr>
<tr>
<td>Receivables</td>
<td>Accounting Rules</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Aging Buckets</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Auto Cash Rules</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Collectors</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Lockbox</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Memo Lines</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Payment Terms</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Remit To Address</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Revenue Contingencies</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Transaction Source</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Receivables</td>
<td>Transaction Type</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Advanced Collections</td>
<td>Collections Setups</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Advanced Collections</td>
<td>Dunning Plans</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Tax</td>
<td>Tax Classification Codes</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Departments</td>
<td>Assignment to one set only, with common values</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Jobs</td>
<td>Assignment to one set only, with common values</td>
</tr>
</tbody>
</table>
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. 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.

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.


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.


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.
12. Select OK.
14. Optionally click the One-Time Address check box.
15. The From Date defaults to today’s date. Update if necessary.
16. Optionally enter a To Date to indicate the last day the address can be used.

Note
You can optionally enter Address Purpose details.

17. Select Add Row.
18. Select Purpose.
19. The Purpose from Date will default to today’s date.
20. Optionally enter a Purpose to Date.
21. 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:

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.

**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.

**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 and Two Tax Reporting Units That Are Subsidiaries of the Legal Entity

This model makes no distinction between a legal employer and a payroll statutory unit. Tax reporting units are defined as subsidiaries to the legal entity. In this enterprise, legal entity is the highest level of aggregation for payroll calculations and reporting, and statutory reporting boundaries are assumed to be the same for both payroll and HR management. An example of a country that might use this model is France.

This figure illustrates an example of an organization with one legal entity that is both a legal employer and a payroll statutory unit and that has two tax reporting units.
One Payroll Statutory Unit with Several Tax Reporting Units 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 Calculations, Elements, and Calculation Cards: How They Work Together

Calculations use information that is defined and managed at different levels.

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

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

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

Calculation Component Group Rules

Each calculation component group, such as involuntary deductions or benefits, has associated rates and rules used to calculate the amount.

- For deductions, 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 personal calculation card.

- Calculation factors associated with an element indicate which calculation value definition to use when calculating the 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 personal calculation card.
The calculated deductible amount would determine the specific rate to use from that definition. A calculation value definition can also define a processing rule, such as a proration rule for calculating bankruptcy payments.

Use the Manage Component Group Rules task in the Payroll Calculation work area to view all wage basis rules, related elements, and calculation factors defined for a particular component group. Use the Manage Calculation Value Definition task to view or create calculation value definitions and calculation values.

**Personal Calculation Card**

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

- A calculation component on a calculation card relates to an element defined at the legislative level. Adding a calculation component to a calculation card typically 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 calculation card override values defined in calculation value definitions 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 calculation card.

**Note**

For some localizations, you can create deduction calculation 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 calculations. They define how calculations are aggregated and reported.

Use the Manage Calculation Cards task in the Payroll Administration or Payroll Calculation work area to create and edit personal calculation cards.

**Note**

Each legislation supports a predefined set of calculation card types, such as cards for statutory deductions, involuntary deductions, time card entries, absences, and benefits and pensions. Additional cards may be supported to capture information for reporting purposes.

**Defining Calculation Cards for Deductions at Different Levels: Examples**

You can create and manage calculation 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 information, from highest to lowest, is as follows:

1. Personal calculation card (payroll relationship level)
2. Tax reporting unit calculation card
3. Payroll statutory unit calculation card
4. calculation value definitions (legislative data group level)

Note

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

Use these examples to understand when you might define calculation cards at
each level.

Personal Calculation Card

An employee qualifies for a special reduced tax rate. The payroll administrator
enters the employee's reduced rate on their personal calculation card, using the
Manage Calculation Cards task in the Payroll Administration work area.

Tax Reporting Unit Card

The income tax exemption amount is set to 2000 USD at the legislative level,
but a tax reporting unit in a particular state or province uses an exemption
amount of 2500 USD. The payroll manager enters the exemption amount on
the tax reporting unit calculation 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 entered on a personal calculation 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 on the payroll statutory unit deduction card, using
the Manage Legal Entity Deduction Records task in the Setup and Maintenance
work area. These values become the default contribution rates for the payroll
statutory unit, but can be overridden by values entered on a personal or tax
reporting unit calculation card.

Calculation Value Definition

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 Calculation Value Definitions 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 on a calculation 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 Legal Reporting Unit 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.

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

**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.

Note

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

Define Chart of Accounts and Accounting Configurations

Payroll Setup Tasks for Financials: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Financials. If you set up costing to cost run results and payments, and distribute accounting for payroll costs, you create components in Financials as part of your implementation, such as chart of accounts, ledgers, and accounting calendars. If you use Global Payroll to process payroll payments, you set up these components before setting up the banks used for payments.

Complete the following setup tasks in the Setup and Maintenance work area for the chart of accounts and ledgers. The application implementation consultant job role can perform the following tasks. You can read more about the setup tasks in the Oracle Fusion Common Implementation Guide.

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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Chart of Accounts Value Sets</td>
<td>Create new or review existing value sets for association with a key flexfield segment.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Structures</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Structure Instances</td>
<td>Create account structure instances used to record transactions and maintain account balances.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Value Set Values</td>
<td>Create groups of values assigned to a key flexfield segment.</td>
</tr>
<tr>
<td>Task</td>
<td>Action</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Account Hierarchies</td>
<td>Search, create, and edit hierarchical groupings of accounts.</td>
</tr>
<tr>
<td>Manage Accounting Calendars</td>
<td>Set up accounting calendar period details. Determine the total number, frequency, and duration of the accounting periods.</td>
</tr>
<tr>
<td>Manage Account Combinations</td>
<td>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 Global Payroll, for example, for your payroll liability, cash, cash clearing, default, and suspense accounts. As a best practice, use the same account numbers in Global Payroll and General Ledger. If you reconcile payments in Oracle Fusion Cash Management, create an account combination for reconciliation differences.</td>
</tr>
<tr>
<td><strong>Ledger Setup Tasks</strong></td>
<td><strong>You perform the following tasks as part of the accounting configuration setup for Global Payroll.</strong></td>
</tr>
<tr>
<td>Manage Primary Ledgers</td>
<td>Create a ledger with a chart of accounts, accounting calendar, currency and subledger accounting method.</td>
</tr>
<tr>
<td></td>
<td>If you are creating bank information, you must create a primary ledger.</td>
</tr>
<tr>
<td>Assign Legal Entities</td>
<td>Add the legal entities that use the ledger.</td>
</tr>
<tr>
<td></td>
<td>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.)</td>
</tr>
<tr>
<td>Specify Ledger Options</td>
<td>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.</td>
</tr>
<tr>
<td>Assign Balancing Segment Values to Legal Entities</td>
<td>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</td>
</tr>
<tr>
<td>Assign Balancing Segment Values to Ledger</td>
<td>Optionally, assign specific primary balancing segment values to the primary and secondary ledgers to represent transactions for nonlegal entities, such as adjustments.</td>
</tr>
</tbody>
</table>
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.

**Resulting Enterprise Configuration**

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

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

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**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 Sales Cloud 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.

To create disability organizations as TCA parties, use the Manage Third Parties task from the Setup and Maintenance work area, and select the disability organization party usage code.

**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
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

**Note**

The manager of a sales department may also be responsible for meeting the revenue targets.
The financial performance of departments is generally tracked through one or more cost centers. In Oracle Fusion Applications, departments are defined and classified as Department organizations. Oracle Fusion Human Capital Management (HCM) assigns workers to departments, and tracks the headcount at the departmental level.

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

**Department Classifications: Points to Consider**

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

Oracle Fusion Human Capital Management (HCM) uses trees to model organization hierarchies. It provides 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 Sales Cloud, 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 Oracle Sales Cloud 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.

![Diagram of cost organization and related cost centers]

**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.

### Uploading Locations Using a Spreadsheet

If you have a list of locations already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, 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.
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.

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. To choose a different employment model for the enterprise or for individual legal employers, use the Manage Enterprise HCM Information and Manage Legal Entity HCM Information tasks in the Setup and Maintenance work area respectively. 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.

<table>
<thead>
<tr>
<th>From</th>
<th>To Single Assignment</th>
<th>To Single Assignment with Contract</th>
<th>To Multiple Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Assignment</td>
<td>N/A</td>
<td>See note</td>
<td>Yes</td>
</tr>
<tr>
<td>Single Assignment with Contract</td>
<td>See note</td>
<td>N/A</td>
<td>See note</td>
</tr>
<tr>
<td>Multiple Assignments</td>
<td>See note</td>
<td>See note</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Note**

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

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. You can enable worker numbers at the enterprise and legal-employer levels. If you enable worker numbers, then each employee and contingent worker work relationship must have a worker number. If you do not enable worker numbers, then they cannot be used.

**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, then numbers can be allocated from either an enterprise sequence or a legal employer sequence. If you use a legal-employer sequence, then 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 work relationship of the same type with a different legal employer, then a new worker number is allocated.

**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 on the Edit Enterprise page of the Manage Enterprise HCM Information task in the Setup and Maintenance work area:
• 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 of interest if:

- Some workers in the enterprise do not need access to 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).
- You want to specify the default format of user names for the enterprise.

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 necessary and specify an effective start date for changed values.

User Account Creation

The User Account Creation option controls:

- Whether user accounts are created automatically in Oracle Identity Management (OIM) when you create a person or party record
- The automatic provisioning of roles to users at account creation

The User Account Creation option applies whether you create person and party records individually or in bulk.

The following table describes the User Account Creation option values.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both person and party users</td>
<td>User accounts are created automatically for both person and party users. This value is the default setting.</td>
</tr>
<tr>
<td>Party users only</td>
<td>User accounts are created automatically for party users only. User accounts are not created automatically when you create HCM person records. For HCM users, account requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.</td>
</tr>
<tr>
<td>None</td>
<td>No user accounts are created automatically. All user account requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.</td>
</tr>
</tbody>
</table>

If you disable the automatic creation of user accounts for some or all users, then you can create user accounts individually in OIM. You can also link existing OIM
user accounts to person and party records using the Manage User Account or Manage Users tasks.

Alternatively, you can use a provisioning infrastructure other than OIM to create and manage user accounts. In this case, you are responsible for managing the interface with Oracle Fusion HCM, including any user-account-related updates.

**User Account Role Provisioning**

Once a user account exists, roles are provisioned to users, or removed from them, as specified by current role-provisioning rules. For example, roles may be provisioned to users manually by their managers and removed from them automatically at termination. You can control role provisioning by setting the **User Account Role Provisioning** option, as described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both person and party users</td>
<td>Roles are provisioned and deprovisioned for both person and party users. This value is the default setting.</td>
</tr>
<tr>
<td>Party users only</td>
<td>Roles are provisioned and deprovisioned for party users only. For HCM users, role requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.</td>
</tr>
<tr>
<td>None</td>
<td>For both person and party users, role requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.</td>
</tr>
</tbody>
</table>

If you manage role provisioning outside Oracle Fusion HCM, then you may want to identify HCM role requests by searching for suppressed requests in the LDAP requests table.

**User Account Maintenance**

The **User Account Maintenance** option controls whether OIM user accounts are maintained, suspended, and reactivated automatically. By default, user accounts are suspended automatically when the user has no roles and reactivated when roles are provisioned. In addition, some person information is sent automatically from Oracle Fusion HCM to OIM when you update a person record. Information sent to OIM includes person name, work e-mail, work location address, system person type from the primary assignment, and manager details. You can control the automatic maintenance of user accounts using the **User Account Maintenance** option, as described in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both person and party users</td>
<td>User accounts are maintained automatically for both person and party users.</td>
</tr>
<tr>
<td>Party users only</td>
<td>User accounts are maintained automatically for party users only. For HCM users, account-maintenance requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.</td>
</tr>
</tbody>
</table>
None

User accounts are not maintained automatically. For both person and party users, account-maintenance requests are held in the LDAP requests table, where they are identified as Suppressed and not passed to OIM.

You can disable the automatic maintenance of user accounts for some or all users if you maintain user accounts in some other way.

OIM user accounts that you maintain automatically do not have to have been created through Oracle Fusion Applications.

Alternate Contact E-Mail Address

The alternate contact e-mail is an enterprise-wide e-mail to which user names and passwords for OIM user accounts can be sent.

Send User Name and Password

If Send User Name and Password is set to Yes, then user names and passwords for new OIM user accounts are sent automatically to the alternate contact e-mail. If you specify no alternate contact e-mail, then the user name and password for a user are sent to the:

- User's primary work e-mail
- Primary work e-mail of the user's line manager, if the user has no primary work e-mail

If primary work e-mails 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-mails are sent to the alternate contact e-mail, the user, or the user's line manager. In this case, you can:

- Override the enterprise setting for individual users on the Create User or Manage User Account page. Any notifications are sent to the user. If the user has no primary work e-mail, then notifications are sent to the user's line manager. They are not sent to the alternate contact e-mail.
- Notify users of their user names and passwords later by running the process Send User Name and Password E-Mail Notifications. This process sends e-mails for users for whom such notifications have not yet been sent. The e-mails are sent to users or their line managers. They are not sent to the alternate contact e-mail.

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.
Default User Name Format

You can specify one of the following values as the default user-name format for the enterprise:

<table>
<thead>
<tr>
<th>Format Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>The user name is generated automatically based on the OIM user-name policy. By default OIM uses the person's first and last names, but this format can be changed in OIM. To make duplicate user names unique, OIM includes either the person's middle name or a random alphabetic character. The user-name format defined by OIM is used automatically unless you select a different value for the Default User Name Format option.</td>
</tr>
<tr>
<td>Party number</td>
<td>The party number is the user name.</td>
</tr>
<tr>
<td>Person number</td>
<td>The HCM person number is the user name. The person number can be generated at various points in the Add Person flows, which affects when the user name itself is generated. For example, if person numbers are allocated only when a hire transaction is approved, then user names cannot be generated sooner. For party users who have no person number, the party e-mail is used instead when person number is the default user name.</td>
</tr>
<tr>
<td>Primary work e-mail</td>
<td>The primary work e-mail (or party e-mail, for party users) is the user name.</td>
</tr>
</tbody>
</table>

If a person's party number, person number, or e-mail is not available when the user account is requested, then the account status is Failed until the value becomes available and the request is resubmitted. If you run the Send Pending LDAP Requests process daily, then the request is likely to be resubmitted as soon as possible after the value becomes available. Alternatively, for individual requests, you can perform the Process User Account Request action on the Manage User Account page.

Default user names can be overridden for individual users on the Create User, Edit User, and Manage User Account pages.

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.

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.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are steps required for the grades?</td>
<td>Yes.</td>
</tr>
<tr>
<td>Which step in each grade should be the ceiling step?</td>
<td>The last step in each grade.</td>
</tr>
<tr>
<td>What type of rates are necessary?</td>
<td>Salary rates only.</td>
</tr>
<tr>
<td>Will the ladder be created using grades or grades with steps?</td>
<td>Grades with steps.</td>
</tr>
</tbody>
</table>
Summary of the Tasks
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Set</td>
<td>Common</td>
</tr>
<tr>
<td>Name</td>
<td>Technicians 03</td>
</tr>
<tr>
<td>Code</td>
<td>Tech03</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Name</td>
<td>Year 1</td>
</tr>
<tr>
<td>Step Name</td>
<td>Year 2</td>
</tr>
<tr>
<td>Step Name</td>
<td>Year 3</td>
</tr>
<tr>
<td>Step Name</td>
<td>Year 4</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Set</td>
<td>Common</td>
<td>Common</td>
<td>Common</td>
</tr>
<tr>
<td>Name</td>
<td>Technicians 04</td>
<td>Technicians 05</td>
<td>Technicians 06</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Set</td>
<td>Common</td>
</tr>
<tr>
<td>Name</td>
<td>Metal Technicians</td>
</tr>
<tr>
<td>Grade Type</td>
<td>Grade with steps</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Technician Ladder Rates</td>
</tr>
<tr>
<td>Rate Type</td>
<td>Salary</td>
</tr>
<tr>
<td>Frequency</td>
<td>Monthly</td>
</tr>
<tr>
<td>Annualization Factor</td>
<td>12</td>
</tr>
<tr>
<td>Currency</td>
<td>EUR</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Grade Name</th>
<th>Step Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technicians 03</td>
<td>Step 1</td>
<td>1,750.73</td>
</tr>
<tr>
<td>Technicians 03</td>
<td>Step 2</td>
<td>1,878.90</td>
</tr>
<tr>
<td>Technicians 03</td>
<td>Step 3</td>
<td>2,009.79</td>
</tr>
<tr>
<td>Technicians 03</td>
<td>Step 4</td>
<td>2,143.92</td>
</tr>
<tr>
<td>Technicians 04</td>
<td>Step 1</td>
<td>2,238.57</td>
</tr>
<tr>
<td>Technicians 04</td>
<td>Step 2</td>
<td>2,408.39</td>
</tr>
<tr>
<td>Technicians 04</td>
<td>Step 3</td>
<td>2,577.68</td>
</tr>
<tr>
<td>Technicians 04</td>
<td>Step 4</td>
<td>2,744.81</td>
</tr>
<tr>
<td>Technicians 05</td>
<td>Step 1</td>
<td>2,831.87</td>
</tr>
<tr>
<td>Technicians 05</td>
<td>Step 2</td>
<td>3,047.14</td>
</tr>
<tr>
<td>Technicians 05</td>
<td>Step 3</td>
<td>3,257.52</td>
</tr>
<tr>
<td>Technicians 05</td>
<td>Step 4</td>
<td>3,469.00</td>
</tr>
<tr>
<td>Technicians 06</td>
<td>Step 1</td>
<td>3,586.36</td>
</tr>
<tr>
<td>Technicians 06</td>
<td>Step 2</td>
<td>3,851.38</td>
</tr>
<tr>
<td>Technicians 06</td>
<td>Step 3</td>
<td>4,122.34</td>
</tr>
<tr>
<td>Technicians 06</td>
<td>Step 4</td>
<td>2,143.92</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Spine Point</th>
<th>Salary</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25,574</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>26,381</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>27,098</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>27,796</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>30,394</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>31,778</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>32,548</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>33,542</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>34,406</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>35,425</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>38,441</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>39,510</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>40,634</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>41,756</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>42,914</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>44,118</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>45,358</td>
<td></td>
</tr>
</tbody>
</table>

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

Resulting Grades, Rates, and Grade Ladder
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.
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.

<table>
<thead>
<tr>
<th>Grade Name</th>
<th>Steps</th>
<th>Ceiling Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>• Spine Point 1</td>
<td>Spine Point 5</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 6</td>
<td></td>
</tr>
<tr>
<td>Grade 2</td>
<td>• Spine Point 6</td>
<td>Spine Point 11</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 12</td>
<td></td>
</tr>
<tr>
<td>Grade 3</td>
<td>• Spine Point 12</td>
<td>Spine Point 17</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Spine Point 17</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Steps</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>• Spine Point 1</td>
<td>• 25,674</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 2</td>
<td>• 26,631</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 3</td>
<td>• 27,068</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 4</td>
<td>• 27,796</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 5</td>
<td>• 30,394</td>
</tr>
<tr>
<td></td>
<td>• Spine Point 6</td>
<td>• 31,778</td>
</tr>
</tbody>
</table>
Grade 2
- Spine Point 6
- Spine Point 7
- Spine Point 8
- Spine Point 9
- Spine Point 10
- Spine Point 11
- Spine Point 12
- 31,778
- 32,648
- 33,542
- 34,466
- 35,425
- 38,441
- 39,510

Grade 3
- Spine Point 12
- Spine Point 13
- Spine Point 14
- Spine Point 15
- Spine Point 16
- Spine Point 17
- 39,510
- 40,634
- 41,746
- 42,914
- 44,118
- 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.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOB_FUNCTION_CODE</td>
<td>Description of the primary function of a job. Used for grouping and reporting jobs of like functions.</td>
</tr>
<tr>
<td>MANAGER_LEVEL</td>
<td>Description of the seniority of a manager.</td>
</tr>
<tr>
<td>EVAL_SYSTEM</td>
<td>Identifies the evaluation system used for the job or position.</td>
</tr>
<tr>
<td>EVAL_SYSTEM_MEAS</td>
<td>Measurement unit for the evaluation criteria.</td>
</tr>
</tbody>
</table>

Position Lookups

Position lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECURITY_CLEARANCE</td>
<td>Classifies if security clearance is needed.</td>
</tr>
<tr>
<td>EVAL_SYSTEM</td>
<td>Identifies the evaluation system used for the job or position.</td>
</tr>
<tr>
<td>EVAL_SYSTEM_MEAS</td>
<td>Measurement unit for the evaluation criteria.</td>
</tr>
<tr>
<td>BARGAINING_UNIT_CODE</td>
<td>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.</td>
</tr>
<tr>
<td>PROBATION_PERIOD</td>
<td>Specifies the unit of measurement for the probation period of a position. For example, 365 &quot;Day&quot;, 52 &quot;Week&quot;, 12 &quot;Month&quot;, or 1 &quot;Year&quot;.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Profile Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR: Organization Hierarchy Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the organization hierarchy proximity factor.</td>
</tr>
<tr>
<td>HR: Position Hierarchy Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the position hierarchy proximity factor.</td>
</tr>
<tr>
<td>HR: Manager Hierarchy Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the manager hierarchy proximity factor.</td>
</tr>
<tr>
<td>HR: Location Proximity Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the location proximity factor.</td>
</tr>
<tr>
<td>HR: Selection History Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the selection history factor.</td>
</tr>
<tr>
<td>HR: Social Network Weight</td>
<td>Specifies the weighting applied to the relationship strength value for the social network factor.</td>
</tr>
</tbody>
</table>

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.
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.

Note

Use the Payroll Batch Loader in the Data Exchange work area to load elements, element entries, balances, balance groups, payroll assignments, and other payroll objects.

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 HCM: Explained

The Load Batch Data process, which you run from the Data Exchange work area, imports data into Oracle Fusion Human Capital Management (HCM) from external sources.

**Note**

The Coexistence for HCM offering is supported for existing Coexistence for HCM customers only.

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 Load Batch Data stage 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 Data for Coexistence tasks. This topic explains the batch-status values.

<table>
<thead>
<tr>
<th>Batch Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>The batch is new and has not been processed.</td>
</tr>
<tr>
<td>Processing</td>
<td>The data-load process for the batch is currently running.</td>
</tr>
<tr>
<td>Refresh AM</td>
<td>The data-load process for the batch is performing an internal refresh against the Application Module (clearing the loader cache).</td>
</tr>
<tr>
<td>Canceled</td>
<td>The data-load process for the batch has been canceled.</td>
</tr>
<tr>
<td>Complete with Errors</td>
<td>Data-load processing for the batch is complete; object instance errors exist.</td>
</tr>
<tr>
<td>System Error</td>
<td>The data-load process for the batch was terminated by a system error.</td>
</tr>
<tr>
<td>Complete</td>
<td>The data-load process for the batch completed successfully.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Object Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>The object is new and has not been processed.</td>
</tr>
<tr>
<td>Pending Action</td>
<td>During the import phase, a validation error occurred for the object instance. (Typically, this status is set by Oracle Data Integrator.)</td>
</tr>
<tr>
<td>Status</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ready to Process</td>
<td>The object has not been processed but is ready for processing.</td>
</tr>
<tr>
<td>Error in Row</td>
<td>The object is in error. Either the object itself is in error or the complex business object to which it belongs is in error.</td>
</tr>
<tr>
<td>Ignore</td>
<td>The object is to be ignored during processing.</td>
</tr>
<tr>
<td>Successful</td>
<td>The object has been successfully processed.</td>
</tr>
</tbody>
</table>

### 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, talent profiles, educational establishments, and salaries. You can view the complete list of supported business objects on the Initiate Spreadsheet Load page, where objects appear in the recommended load order. You can include descriptive flexfields in data uploads.

This topic describes:

- How data is uploaded using HCM Spreadsheet Data Loader
- How to correct import errors
- How to correct load errors
- When to use HCM Spreadsheet Data Loader
- Support for date-effective updates
- 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.

1. You generate a spreadsheet for a selected HCM business object, enter data in the spreadsheet, and click **Upload**. This action imports the data to a named batch in the Load Batch Data stage tables.

2. The Load Batch Data process, which loads data from the stage tables to the Oracle Fusion application tables, runs automatically when valid data rows are imported to the stage tables.

   Load Batch Data is a generic process for loading data to Oracle Fusion HCM from external sources.

Errors from both stages of the process are reported in the original spreadsheet.

The following figure summarizes both stages of this process.
Correcting Import Errors

When you import data from a spreadsheet, the status of each spreadsheet row is updated automatically to show whether the row was inserted successfully in the batch. If any row fails, you can display information about the error by double-clicking the status value. After correcting any errors, you click Upload to import the corrected data to the existing batch.

Correcting Load Errors

As each spreadsheet row is successfully imported to the batch in the stage tables, the Load Batch Data process runs automatically. This process loads the data from the stage tables to the Oracle Fusion application tables. During this transfer, the data is validated.

If errors occur at this stage, they are reported in the original spreadsheet when you click Refresh. After correcting the errors in the spreadsheet, you click Upload again to import the corrected data to the same batch in the Load Batch Data stage tables. The Load Batch Data process runs automatically for the corrected rows.

When to Use HCM Spreadsheet Data Loader

You can use HCM Spreadsheet Data Loader to create any of the business objects that it supports. You can also 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 Spreadsheet 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 small-to-medium amounts of data. For example, uploading 100 job definitions is likely to be more efficient than creating them individually using the Create Job task. However, to
create just a few business objects it may be quicker to perform the relevant tasks. HCM Spreadsheet Data Loader is not suitable for loading large numbers (tens of thousands) of records.

Approval processes do not apply to data uploaded using HCM Spreadsheet Data Loader.

After loading person records in bulk, you are recommended to run the following processes in the order shown here. Allow the first process to complete before starting the second.

<table>
<thead>
<tr>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Pending LDAP Requests</td>
<td>Sends bulk requests for user accounts to Oracle Identity Management (OIM).</td>
</tr>
<tr>
<td>Send Personal Data for Multiple Users to LDAP</td>
<td>Ensures that personal data held by Oracle Fusion HCM and OIM is synchronized.</td>
</tr>
</tbody>
</table>

**Support for Date-Effective Updates**

When updating worker and assignment objects, you can both correct and update records.

- To correct a record, you specify the same effective start date as was used to create the record.

- To update a record, you specify a different effective start date from the date that was used to create the record.

**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.

  You can perform this task if you have the Application Implementation Consultant job role.

- Perform the Initiate Spreadsheet Load task from the Data Exchange work area.

  You can perform this task if you have the Human Capital Management Application Administrator or Application Implementation Consultant job role.

**Spreadsheet and Batch Names**

Spreadsheet names are generated automatically, but you can replace them. If you are uploading several types of business objects, devise a naming scheme that enables you to identify spreadsheets easily. 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, use a suffix 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 helps you to associate a spreadsheet with its batch. For example, for uploading jobs on 01/08/13, you could use the spreadsheet name Jobs010813.xlsx and the batch name Jobs010813.

**Uploading Data Using HCM Spreadsheet Data Loader: Worked Example**

This example shows how to upload jobs for the Sales Department using the Initiate HCM Spreadsheet Load task.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which business objects am I loading?</td>
<td>Jobs</td>
</tr>
<tr>
<td>What is my spreadsheet name?</td>
<td>SalesJobs113012Batchnn.xlsx</td>
</tr>
<tr>
<td>What is my batch name?</td>
<td>SalesJobs113012Batchnn</td>
</tr>
</tbody>
</table>

**Summary of the Tasks**

Upload the jobs data by:

1. Selecting the Initiate HCM Spreadsheet Load task
2. Creating the jobs spreadsheet
3. Entering data in the jobs spreadsheet
4. Importing jobs and correcting import errors
5. Reviewing and correcting load errors

**Prerequisites**

Before you can complete this task, you must have:

1. Installed the desktop client Oracle ADF Desktop Integration Add-in for Excel
2. Enabled the Trust Center setting **Trust access to the VBA project object model** 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Task</td>
</tr>
<tr>
<td>Name</td>
<td>Initiate HCM Spreadsheet Load</td>
</tr>
</tbody>
</table>
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 Spreadsheet Load task in the Data Exchange work area.

**Creating the Jobs Spreadsheet**

1. On the Initiate Spreadsheet Load page, find the entry for Create HR Job in the list of business objects.

Create HR Job appears after other business objects such as grades, locations, and job families. Those business objects must be created before jobs, regardless of how you create them.

2. Click **Create Spreadsheet** for the Create HR Job entry.

3. When prompted, save the spreadsheet locally using the name SalesJobs113012Batch01.xlsx.

4. When prompted, sign in to Oracle Fusion Applications using your Oracle Fusion user name and password.

**Entering Data in the Jobs Spreadsheet**

1. In the **Batch Name** field of the spreadsheet SalesJobs113012Batch01.xlsx, replace the default batch name with the batch name SalesJobs113012Batch01.

2. Click **Configure Flexfield** to configure flexfield data.

3. In the **Configure Flexfield** window, select a **Job Attributes** value and click **OK**.

4. See the Flexfields Reference tab for information about the configured flexfield.

5. Enter jobs data in the spreadsheet.

   Ensure that you provide any required values in the jobs rows and follow instructions in the spreadsheet for creating rows.

**Importing Jobs and Correcting Import Errors**

Use the default values except where indicated.

1. In the jobs spreadsheet, click **Upload**.

2. In the **Upload Options** window, click **OK**.

   As each row of data is imported to the Load Batch Data stage tables, its status is updated.

3. When uploading completes, identify any spreadsheet rows with the status **Insert failed**, which indicates that the row was not imported to the stage tables.

4. For any row that failed, double-click the status value to display a description of the error.
5. Correct any import errors and click **Upload** again to import the remaining rows to the same batch.

   As rows are imported successfully to the stage tables, the data is loaded automatically to the application tables.

**Reviewing and Correcting Load Errors**

1. In the spreadsheet, click **Refresh** to display latest load status.

   Any errors that occur during the load process are reported in the spreadsheet.

2. Correct any load errors in the spreadsheet.

3. Repeat this process from Importing Jobs and Correcting Import Errors until all spreadsheet rows are both imported and loaded successfully.

4. Close the spreadsheet.

   To load a second batch of jobs for the Sales Department on the same date, increment the batch number in the spreadsheet and batch names (for example, SalesJobs113012Batch02).

### Sending Personal Data to LDAP: Explained

Oracle Identity Management (OIM) maintains Lightweight Directory Access Protocol (LDAP) user accounts for users of Oracle Fusion Applications. By default, OIM user accounts are created automatically when you create person records. Some personal information for new users is sent automatically to OIM. This information includes the person number, person name, phone, and manager of the person's primary assignment. These details are sent to OIM to ensure that Oracle Fusion HCM (HCM) and OIM hold the same information about users.

**Creating Users in Bulk**

After loading person records in bulk using Oracle Fusion HCM File-Based Loader or HCM Spreadsheet Data Loader, for example, you run the process Send Pending LDAP Requests. This process sends bulk requests for new user accounts to OIM.

When you load person records in bulk, the order in which they are created in HCM is undefined. As a result, a person's record may exist before the record for his or her manager. In such cases, no manager details for the person are sent to OIM when you run Send Pending LDAP Requests. The OIM information therefore differs from information held for the person by HCM. To correct any differences between the OIM and HCM versions of personal details, you run the process **Send Personal Data for Multiple Users to LDAP**.

**Send Personal Data for Multiple Users to LDAP**

Send Personal Data for Multiple Users to LDAP updates OIM information to match that held by HCM. You run the process for either all users or changed users only, as described in this table.
### Common Applications Configuration: Define Batch Data Loads

<table>
<thead>
<tr>
<th>User Population</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All users</td>
<td>Personal details for all users are sent to OIM, regardless of whether they have changed since personal details were last sent to OIM.</td>
</tr>
<tr>
<td>Changed users only</td>
<td>Only personal details that have changed since details were last sent (regardless of how they were sent) are sent to OIM. This option is the default setting.</td>
</tr>
</tbody>
</table>

**Note**

If User Account Maintenance is set to No for the enterprise, then the process does not run.

The process does not apply to party users.

You must have the IT Security Manager or Human Capital Management Application Administrator role to run this process.

**The Copy Personal Data to LDAP Action**

From the Manage User Account page, you can copy personal data to OIM for an individual user. By default, personal data changes are copied periodically to OIM. However, this action is available if you make a change that you want to copy to OIM immediately.

**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?**

You fix errors in the spreadsheet that you used to upload the data.

Errors that occur during the import to the Load Batch Data stage tables are reported automatically in the spreadsheet. For any row that fails to load, double-
click the status value for a description of the error. After correcting any errors, click **Upload** again.

Errors that occur as data is loaded from the stage tables to the application tables are also reported in the spreadsheet. Click **Refresh** to display these errors. After correcting any load errors, click **Upload** again.

**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 Spreadsheet Load page. For example, Create Location appears before Create Business Unit on the Initiate Spreadsheet 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.
Common Applications Configuration: Define Workforce Profiles

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 group of valid values that you assign to a flexfield segment to control the values that are stored for business object attributes. An end user enters a value for an attribute of a business object while using the application. The flexfield validates the value against the set of valid values that you configured as a value set and assigned to the segment. For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue. Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

**Caution**

Be sure that changes to a shared value set are compatible with all flexfields segments using the value set.

The following aspects are important in understanding value sets:

- Managing value sets
- Validation
- Security
- Precision and scale
• Usage and deployment

Managing Value Sets
To access the Manage Value Sets page, use the Manage Value Sets task, or use the Manage Descriptive Flexfields and Manage Extensible Flexfields tasks for configuring a segment, including its value set. To access the Manage Values page, select the value set from the Manage Value Sets page, and click Manage Values. Alternatively, click Manage Values from the Edit Value Set page.

Validation
The following types of validation are available for value sets:
• Format only, where end users enter data rather than selecting values from a list
• Independent, a list of values consisting of valid values you specify
• Dependent, a list of values where a valid value derives from the independent value of another segment
• Subset, where the list of values is a subset of the values in an existing independent value set
• Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set doesn’t present a list of valid values to users.

Note
Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

Security
Value set security only works in conjunction with usage within flexfield segments.
You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. The value set is the resource secured by data security policies. If a value set is secured, every usage of it in any flexfield is secured. It isn’t possible to disable security for individual usages of the same value set.

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 doesn’t determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.
**Precision and Scale**

If the data type of a value set is Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

**Usage and Deployment**

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.

For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment. Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

**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.

**Tip**

As a flexfield guideline, define value sets before configuring the flexfield, because you can assign value sets to each segment as you configure a flexfield.
With descriptive and extensible flexfield segments, you can create value sets when adding or editing a segment on the run time page where the flexfield appears.

The following aspects are important in defining value sets:

- Value sets for context segments
- Format-only validation
- Interdependent value sets
- Table validation
- Range
- Security
- Testing and maintenance

**Value Sets for Context Segments**

When assigning a value set to a context segment, you can only use table-validated or independent value sets. You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set cannot reference flexfield segments in the value set's WHERE clause other than the flexfield segment to which the value set is assigned.

**Format Only Validation**

The format only validation type enables 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, users can enter the value 456 (for a value set with maximum length of three or more), but can't enter the value ABC. A format only value set doesn't otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how may digits should follow the radix separator.

**Interdependent Value Sets**

Use an independent value set to validate input against a list that isn't stored in an application table, and not dependent on a subset of another independent value set. You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. Use a dependent value set to limit the list of values for a given segment based on the value that the 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 don’t need to choose a value for another segment first to have access to the subset value set.

Independent, dependent, and subset value sets require a customized list of valid values. Use the Manage Values page to create and manage a value set’s valid values and the order in which they appear.

Tip
You can customize the Manage Value Sets page to capture additional attributes for each valid value by adding context-sensitive segments in a new context for FND_VS_VALUES_B descriptive field.

Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table, such as a table of vendor names. Specify the table column that contains the valid value. You can optionally specify the description and ID columns, a WHERE clause to limit the values to use for your set, and an ORDER BY clause.

If you specify an ID column, then the flexfield saves the ID value, instead of the value from the value column, in the associated flexfield segment. If the underlying table supports translations, you can enable the display of translated text by basing the value set’s value column on a translated attribute of the underlying table. You should also define an ID column that is based on an attribute that isn’t language-dependent so that the value’s invariant ID (an ID that doesn’t change) is saved in the transaction table. This allows the run time to display the corresponding translated text from the value column for the run time session’s locale.

Table validation lets you enable a segment to depend upon multiple prior segments in the same context structure. You cannot reference other flexfield segments in the table-validated value set’s WHERE clause. That is, the WHERE clause cannot reference SEGMENT.segment_code or VALUESET.value_set_code.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it doesn’t have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

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.

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.

To enable security on a value set, specify a database resource, typically the code value for the value set. Using the Manage Database Security Policies task, specify conditions, such as filters or SQL predicates, and policies that associate roles with conditions. You can use a filter for simple conditions. For more complex conditions, use a SQL predicate.

Value set data security policies and conditions differ from data security conditions and policies for business objects in the following ways:

- You can grant only read access to end users. You cannot specify any other action.
- When defining a condition that is based on a SQL predicate, use VALUE, VALUE_NUMBER, VALUE_DATE, VALUE_TIMESTAMP, or VALUE_ID to reference the value from a dependent, independent, or subset value set. For table value sets, use a table alias to define the table, such as &TABLE_ALIAS category=70.

When you enable security on table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set shouldn't assume anything about the bind variables; it must assume that 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.

Testing and Maintenance

There is no need to define or maintain values for a table-validated value set, as the values are managed as part of the referenced table or independent value set, respectively.

You cannot manage value sets in a sandbox.

When you change an existing value set, the deployment status for all affected flexfields changes to Edited. You must redeploy all flexfields that use that value set to make the flexfields reflect the changes. In the UI pages for managing value sets, the value set's usages show which flexfields are affected by the value set changes.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select Translatable. This doesn't require you to provide translated values now, but you cannot change this option if you decide to provide them later.

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
Common Applications Configuration: Define Workforce Profiles

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.

**Updating Talent Ratings: Explained**

Talent ratings are all the possible ratings that are used to evaluate a worker, including performance, potential, proficiency, readiness, and impact. Ratings are used in multiple products within the HCM product family such as Oracle Fusion Profile Management, Oracle Fusion Performance Management, Oracle Fusion Talent Review, and Oracle Fusion Compensation Management.

**Talent Rating Types**

The following table shows talent ratings supported by the application and their descriptions. Depending on application settings and roles assigned, you can view, add, and update these talent ratings across multiple products within the HCM product family.

<table>
<thead>
<tr>
<th>Talent Ratings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talent score</td>
<td>Rating used for evaluating a person’s overall value to the organization using a rating model your organization defines.</td>
</tr>
<tr>
<td>Performance rating</td>
<td>Rating given to an item, section, or overall performance document.</td>
</tr>
<tr>
<td>Potential level</td>
<td>Rating score assigned to a person based on an evaluation of the execution of his work.</td>
</tr>
<tr>
<td>Potential score</td>
<td>Rating used for evaluating a person’s attainable level of excellence or ability to achieve success.</td>
</tr>
<tr>
<td>N-box assignment</td>
<td>Rating that shows a person’s current contribution and potential contributions to an organization on a box chart matrix with N boxes. N represents the number of boxes in the grid.</td>
</tr>
<tr>
<td>Advancement readiness</td>
<td>Rating used for evaluating person’s readiness for the next position in their career development.</td>
</tr>
<tr>
<td>Risk of loss</td>
<td>Rating used for evaluating the likelihood of a person leaving the company.</td>
</tr>
<tr>
<td>Impact of loss</td>
<td>Rating used for evaluating the real or perceived effects on an organization when the person leaves.</td>
</tr>
<tr>
<td>Goals section rating</td>
<td>Rating used for evaluating a goals section in a performance template. A goal section includes goal items.</td>
</tr>
<tr>
<td>Competencies section rating</td>
<td>Rating used for evaluating a competencies section in a performance template. A competencies section includes competency type content items.</td>
</tr>
</tbody>
</table>

**Updating Talent Ratings**

You can update talent ratings depending on application settings and roles assigned to you. The following table shows where talent ratings can be updated.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Talent score</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Performance rating</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Potential level</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Potential score</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>N-box assignment</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Advancement readiness</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Risk of loss</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Impact of loss</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Goals section rating</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Competencies section rating</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Note**

The performance rating on a performance document is always the one entered by the manager during a worker's performance evaluation. The performance rating from the worker’s performance document is then displayed on the worker’s profile. The talent review process uses talent ratings on the worker’s profile to build talent review information. When a talent review meeting concludes, a worker’s profile is automatically updated with the calibrated ratings. Therefore, the performance rating displayed in a worker’s performance document might be different from the one displayed in the worker’s profile.

**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

**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.

**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 Properties: Explained**

Content type properties represent the information that you want to capture for the content type. They are the attributes that are used to define the content items for a content type.

The attributes that you can set for each content type property that you want to include for a content type are displayed in the following table.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Label for the field</td>
</tr>
<tr>
<td>Default Value</td>
<td>Value that appears by default</td>
</tr>
<tr>
<td>Required</td>
<td>Determines if the user required to populate the field</td>
</tr>
<tr>
<td>Display</td>
<td>Determines if the field editable, hidden, or display only</td>
</tr>
<tr>
<td>Source</td>
<td>Name of the lookup type that provides values for the field. This attribute is specified for fields ITEM_TEXT_1 to ITEM_TEXT_10</td>
</tr>
</tbody>
</table>

**Displaying Content Type Properties**

To include an attribute on the content item, use the Manage Profile Content Types task in the Setup and Maintenance work area to edit the content type. On the Edit Content Type page, determine the attributes of content type properties that will be used for defining the relevant content items. The following table describes fields (content type properties) that appear on the pages with the content item.
<table>
<thead>
<tr>
<th>Field</th>
<th>Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUNTRY_ID</td>
<td>Country ID</td>
</tr>
<tr>
<td>DATE_FROM</td>
<td>Start date information of a content item</td>
</tr>
<tr>
<td>DATE_TO</td>
<td>End date information of a content item</td>
</tr>
<tr>
<td>ITEM_DATE_1 to ITEM_DATE_10</td>
<td>Any date</td>
</tr>
<tr>
<td>ITEM_NUMBER_1 to ITEM_NUMBER_7</td>
<td>Any numeric data</td>
</tr>
<tr>
<td>ITEM_TEXT_1 to ITEM_TEXT_10</td>
<td>Data that requires selecting values from a list. Each field can store up to 30 characters of data. Ensure that the value of the Source field is a lookup type</td>
</tr>
<tr>
<td>ITEM_TEXT_11 to ITEM_TEXT_30</td>
<td>Nontranslatable data, such as a code or serial ID. Each field can store up to 30 characters of data</td>
</tr>
<tr>
<td>ITEM_TEXT_TL_1 to ITEM_TEXT_TL_5</td>
<td>Translatable data. Each field can store up to 240 characters of data</td>
</tr>
<tr>
<td>ITEM_TEXT_TL_6 to ITEM_TEXT_TL_10</td>
<td>Translatable data. Each field can store up to 2000 characters of data</td>
</tr>
<tr>
<td>ITEM_TEXT_TL_11 to ITEM_TEXT_TL_15</td>
<td>Translatable data. Each field can store up to 4000 characters of data</td>
</tr>
<tr>
<td>RATING_MODEL_ID</td>
<td>Rating model</td>
</tr>
<tr>
<td>STATE_PROVINCE_ID</td>
<td>State ID. This field is used in conjunction with the field COUNTRY_ID</td>
</tr>
</tbody>
</table>

**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.

**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.

**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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can a predefined rating model be used to rate corporate citizenship?</td>
<td>No. The predefined rating models do not have relevant rating descriptions.</td>
</tr>
</tbody>
</table>
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? | Add two fields to the content type:
- ITEM_TEXT_20
- RATING_MODEL_ID
The ITEM_TEXT_20 field will have a label of Comments, and will be used to enter comments about the workers’ corporate involvement. The RATING_MODEL_ID field will have a label of Company Contribution and will be used to attach the rating model for corporate citizenship to the content type.
Both fields should require entry and should be editable.
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? | - Corporate social responsibility
- Corporate environmental responsibility
- Corporate industrial citizenship
- Corporate state citizenship
- Corporate borough, council, or municipal citizenship
When the content type is added to the person profile as a content section, what properties should the fields contain? | Both the Comments field and the Company Contribution 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Citizenship</td>
</tr>
<tr>
<td>Rating Name</td>
<td>Corporate Citizenship</td>
</tr>
<tr>
<td>Description</td>
<td>Rating model for corporate citizenship</td>
</tr>
</tbody>
</table>

4. On the Rating Levels tab, complete the following fields, as shown in this table.

<table>
<thead>
<tr>
<th>Rating Level</th>
<th>Name</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demonstrates limited or unused influence.</td>
<td>Limited</td>
</tr>
<tr>
<td>2</td>
<td>Demonstrates clear evidence of influence.</td>
<td>Clear Evidence</td>
</tr>
<tr>
<td>3</td>
<td>Provides a successful image of the company as socially responsible in limited environments.</td>
<td>Successful Image</td>
</tr>
<tr>
<td>4</td>
<td>Actively called upon to use influence as a corporate representative in selected environments.</td>
<td>Influential in Selected Environments</td>
</tr>
<tr>
<td>5</td>
<td>Demonstrates high level of influence and is able to operate effectively in all environments.</td>
<td>High Level of Influence</td>
</tr>
</tbody>
</table>

5. Click **Save and Close**.

**Creating a 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, add a content type by completing the following fields, as shown in this table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Citizenship</td>
</tr>
<tr>
<td>Name</td>
<td>Corporate Citizenship</td>
</tr>
<tr>
<td>Description</td>
<td>Ratings for corporate citizenship behaviors for workers.</td>
</tr>
</tbody>
</table>

4. Set up the following field properties, as shown in this table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Label</th>
<th>Required</th>
<th>Display Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_TEXT_20</td>
<td>Comments</td>
<td>Selected</td>
<td>Editable</td>
</tr>
<tr>
<td>RATING_MODEL_</td>
<td>Company Contribution</td>
<td>Selected</td>
<td>Editable</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Type</td>
<td>Corporate Citizenship</td>
</tr>
<tr>
<td>Content Item</td>
<td>Corporate Social Responsibility</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Display Flag</th>
<th>Required</th>
<th>Searchable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_TEXT240_1</td>
<td>Detail</td>
<td>Selected</td>
<td>Selected</td>
</tr>
<tr>
<td>RATING_LEVEL_ID1</td>
<td>Detail</td>
<td>Selected</td>
<td>Selected</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should the content type be a free-form content type?</td>
<td>Yes. Content items are not needed, and the content should not be stored in the content library.</td>
</tr>
<tr>
<td>Does the content type need any content subscribers?</td>
<td>Yes. In order to be visible on the person profile, the new content type must be added to the HRMS content subscriber code.</td>
</tr>
<tr>
<td>When the content type is added to the person profile as a content section, what fields are needed?</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>• ITEM_TEXT30_1</td>
</tr>
<tr>
<td></td>
<td>• ITEM_DATE_1</td>
</tr>
<tr>
<td></td>
<td>• ITEM_DATE_2</td>
</tr>
<tr>
<td></td>
<td>• ITEM_TEXT240_1</td>
</tr>
</tbody>
</table>

Common Applications Configuration: Define Workforce Profiles 8-19
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>PREVEMP</td>
</tr>
<tr>
<td>Name</td>
<td>Previous Employment</td>
</tr>
<tr>
<td>Description</td>
<td>Track previous employment information for workers.</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Label</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_TEXT30_1</td>
<td>Previous Employer</td>
<td>Detail</td>
</tr>
<tr>
<td>ITEM_DATE_1</td>
<td>From Date</td>
<td>Detail</td>
</tr>
<tr>
<td>ITEM_DATE_2</td>
<td>To Date</td>
<td>Detail</td>
</tr>
<tr>
<td>ITEM_TEXT240_1</td>
<td>Job Description</td>
<td>Detail</td>
</tr>
</tbody>
</table>

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.

**Content Section Properties: Explained**

Content types are referred to in profile types as content sections. Content section properties are attributes that are used to define data included in a person profile and displayed in the portrait.

The attributes that you can set for each content section property that you want to include for a content section are displayed in the following table.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Label for the field</td>
</tr>
<tr>
<td>Default Value</td>
<td>Value that appears by default</td>
</tr>
<tr>
<td>Display</td>
<td>Determines if the field displayed on the content section UI. If yes, then whether the field must be displayed on the content section summary table, content section details area, or both</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Required</td>
<td>Determines if the user required to populate the field</td>
</tr>
<tr>
<td>Searchable</td>
<td>Determines if the field included in profile searches</td>
</tr>
<tr>
<td>Value Set Name</td>
<td>Name of the lookup type that provides values for the field. This attribute is specified for fields ITEM_TEXT30_6 to ITEM_TEXT30_15</td>
</tr>
</tbody>
</table>

**Note**
Source and View Attribute attributes are not used and can be ignored.

### Displaying Content Section Properties

To include an attribute on the person profile, use the Manage Profile Types task in the Setup and Maintenance work area and edit the person profile. On the Edit Profile Type page, select and edit a content section and its properties that will be used for defining the relevant profile items. You can change content section properties inherited from the content library and free-form content types as needed. The following table describes fields (content section properties) that appear on the pages with the profile item.

<table>
<thead>
<tr>
<th>Field</th>
<th>Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUNTRY_ID</td>
<td>Country ID</td>
</tr>
<tr>
<td>STATE_PROVINCE_ID</td>
<td>State ID. This field is used in conjunction with the field COUNTRY_ID</td>
</tr>
<tr>
<td>DATE_FROM</td>
<td>Start date information of a content section. This field is used for maintaining the history of profile items</td>
</tr>
<tr>
<td>DATE_TO</td>
<td>End date information of a content section. This field is used for maintaining the history of profile items</td>
</tr>
<tr>
<td>ITEM_DATE_1 to ITEM_DATE_10</td>
<td>Any date</td>
</tr>
<tr>
<td>ITEM_TEXT30_1 to ITEM_TEXT30_5</td>
<td>Data that requires selecting values from a check box</td>
</tr>
<tr>
<td>ITEM_TEXT30_6 to ITEM_TEXT30_15</td>
<td>Data that requires selecting values from a list. Ensure that the value of the Value Set Name field is a lookup type. For example, HRT_RISK_REASON is a lookup type for selecting risk of loss reasons</td>
</tr>
<tr>
<td>ITEM_TEXT_240_1 to ITEM_TEXT_240_15</td>
<td>A simple text, such as a name. Each field can store up to 240 characters of data</td>
</tr>
</tbody>
</table>

**Note**
For a free-form content type, the ITEM_TEXT240_1 field is used to display as the title of the profile item in the Experience and Qualifications card

| ITEM_DECIMAL_1 to ITEM_DECIMAL_5 | Numeric data that includes decimals. For example, price USD 2.99 |
| ITEM_NUMBER_1 to ITEM_NUMBER_10 | Numeric data that does not include decimals. For example, age 29 years |
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.

---

**Resulting Setup**

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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Label</th>
<th>Display</th>
<th>Value Set Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_TEXT30_6</td>
<td>Development Readiness</td>
<td>Summary</td>
<td>HRT_READINESS</td>
</tr>
</tbody>
</table>
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.

FAQs for Define Talent Profiles

How can I hide or delete an attribute on the person profile?

You must have the human resource (HR) specialist role to hide or delete an attribute on the person profile.

Note

You can hide predefined attributes, but you cannot delete them.

To hide an attribute on the person profile, use the Manage Profile Types task in the Setup and Maintenance work area and edit the person profile. On the Edit Profile Type page, select a content section that includes the attribute you want to hide. To hide the attribute, select None as the Display value for that attribute. For example, to hide the attribute School Name, select Degrees from Content Sections on the Edit Profile Type page, and set the Display value of the attribute School Name to None.

To delete an attribute that is not a predefined attribute on the person profile, you navigate to the Manage Profile Types task in the Setup and Maintenance work area, edit the person profile, and delete the attribute. For example, to delete the attribute School Name, you navigate to the Manage Profile Types task in the Setup and Maintenance work area. Edit the person profile, select Degrees from Content Sections, and then from the Content Properties section, click Delete to delete the attribute School Name.

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

Note

Questionnaires used for talent reviews, called potential assessments, are predefined and do not require a template.

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.

<table>
<thead>
<tr>
<th>Section Presentation</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sections</td>
<td>One required section appears that contains all questions.</td>
</tr>
<tr>
<td>Stack regions</td>
<td>Sections are arranged from top to bottom.</td>
</tr>
</tbody>
</table>
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 **Allow 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.

---

**Note**

The requirement to answer all required questions is also determined by the subscriber application.
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.
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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Finance Department</td>
</tr>
<tr>
<td>Job</td>
<td>Sales Manager</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

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.

**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.

---

**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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager with Reports</td>
<td>Yes</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>ABC Department</td>
</tr>
<tr>
<td>System Person Type</td>
<td>Employee</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoprovisioned Roles Sales Department</td>
<td>Mapping includes all roles provisioned automatically to anyone in the sales department</td>
</tr>
<tr>
<td>Benefits Specialist Autoprovisioned</td>
<td>Mapping defines the conditions for autoprovisioning the Benefits Specialist role</td>
</tr>
<tr>
<td>Line Manager Requestable Roles</td>
<td>Mapping includes all roles that a line manager can provision manually to direct and indirect reports</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Person Type</td>
<td>Employee</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

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.

**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.

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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Unit</td>
<td>Sales</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
<tr>
<td>Manager with Reports</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Person Type</td>
<td>Retiree</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Inactive</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Sales</td>
</tr>
<tr>
<td>Job</td>
<td>Sales manager</td>
</tr>
<tr>
<td>Grade</td>
<td>6</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

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.

• Work e-mails for new workers.

  If you include work e-mails in new person records, then those e-mails are sent to OIM, which owns them. Only when OIM returns them to Oracle Fusion are they valid and usable.

• 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.

Note

You can disable, for the enterprise, most default processing of Send Pending LDAP Requests. In particular, you can prevent the:

• Default creation of user accounts
• Provisioning and deprovisioning of roles
• Sharing of changes to person attributes

To control these aspects of the Send Pending LDAP Requests process, you perform the task Manage Enterprise HCM Information.

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 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 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.)

• 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.

Note

New HCM data roles are available only when OIM has returned information about those roles to Oracle Fusion HCM.

• Work e-mails.

A worker can have only one work e-mail, which is owned by OIM. Once the e-mail exists, you manage it in OIM and any changes are sent to Oracle Fusion HCM.

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 updated.
• Person number
• System person type from the person’s primary assignment
• The GUID of the manager of the person’s primary assignment
• 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 Oracle Sales Cloud 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 Initiate HCM Spreadsheet Load task. If user and role provisioning rules have been defined, the Initiate HCM Spreadsheet Load process automatically creates user and role provisioning requests as the workers are created.

Once the enterprise is set up, performing the Initiate HCM Spreadsheet Load 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 Initiate HCM Spreadsheet Load task results in new user accounts being created. Worker email addresses as an alternate input for the Initiate HCM Spreadsheet Load 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 Initiate HCM Spreadsheet Load 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 Oracle Sales Cloud.

- Internal employees
- Contingent workers
- External partner contacts
- Partner companies
- Legal entities
- Customers
- Consumers

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 Initiate HCM Spreadsheet Load 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.

Note

Manage Job Roles does not include provisioning job roles to users. Provisioning users is done in OIM, HCM, Oracle Sales Cloud, or Oracle Fusion Supplier Portal.

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.

**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.

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.

**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.
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).

Note
In AACG, segregation of duties policies are called access controls or segregation of duties controls.

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

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.

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.

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.

**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.

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.

**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.

**Importing Worker Users: Explained**

You can import workers from legacy applications to Oracle Fusion Applications using the Import Worker Users task. By enabling you to bulk-load existing data, this task is an efficient way of creating and enabling users of Oracle Fusion Applications.

**The Import Worker Users Process**

Importing worker users is a two-stage process:

1. When you perform the Import Worker Users task, the Initiate Spreadsheet Load page opens. On the Initiate Spreadsheet Load page, you generate
and complete the Create Worker spreadsheet. You must map your data to the spreadsheet columns and provide all required attributes. Once the spreadsheet is complete, you click Upload in the spreadsheet to import the data to the Load Batch Data stage tables.

2. As valid data rows are imported to the Load Batch Data stage tables, the Load Batch Data process runs automatically. Load Batch Data is a generic utility for loading data to Oracle Fusion Human Capital Management from external sources. This process loads data from the Load Batch Data stage tables to the Oracle Fusion application tables.

User-Account Creation

Oracle Fusion user accounts are created automatically for imported workers in Oracle Identity Management (OIM), unless automatic account creation is disabled.

By default, user account names and passwords are sent automatically to users when their accounts are created. This default action may have been changed at enterprise level, as follows:

- User account names and passwords may be sent to an enterprise-wide e-mail rather than to users themselves.
- Automatic sending of user account names and passwords may be disabled for the enterprise. In this case, you can notify users at an appropriate time.

Role Provisioning

Once user accounts exist, roles are provisioned to users automatically in accordance with current role-provisioning rules. For example, current rules could provision the employee abstract role to every worker. Role provisioning occurs automatically unless it is disabled for the enterprise.

Importing Worker Users: Worked Example

This example shows how to import worker users from legacy applications to Oracle Fusion Applications.

The following table summarizes key decisions for this task.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is my spreadsheet name?</td>
<td>WorkersMDDYYBatchnn.xlsx</td>
</tr>
<tr>
<td>You can define your own naming convention. In this example, the name is selected to make identifying the spreadsheet contents easy.</td>
<td>For example, Workers042713Batch01.xlsx.</td>
</tr>
<tr>
<td>What is my batch name?</td>
<td>Workers042713Batchnn</td>
</tr>
<tr>
<td>You can define your own batch name, which must be unique. In this example, the batch name is the same as the spreadsheet name.</td>
<td></td>
</tr>
</tbody>
</table>
Summary of the Tasks

Import worker users by:

1. Selecting the Import Worker Users task
2. Creating the spreadsheet
3. Entering worker data in the spreadsheet
4. Importing worker data and correcting import errors
5. Reviewing and correcting load errors

Prerequisites

Before you can complete this task, you must have:

1. Installed the desktop client Oracle ADF Desktop Integration Add-in for Excel
2. Enabled the Trust Center setting Trust access to the VBA project object model in Microsoft Excel

Selecting the Import Worker Users 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Task</td>
</tr>
<tr>
<td>Name</td>
<td>Import Worker Users</td>
</tr>
</tbody>
</table>

3. Click Search.
4. In the search results, click Go to Task for the task Import Worker Users.

The Initiate Spreadsheet Load page opens.

Alternatively, you can select the Import Worker Users task from an implementation project.

Creating the Spreadsheet

1. On the Initiate Spreadsheet Load page, find the entry for Create Worker in the list of business objects.

Create Worker appears after other business objects such as departments, locations, and jobs. Those business objects must be created before worker users, regardless of how you create them.

2. Click Create Spreadsheet for the Create Worker entry.
3. When prompted, save the spreadsheet locally using the name Workers042713Batch01.xlsx.
4. When prompted, sign in to Oracle Fusion Applications using your Oracle Fusion user name and password.
Entering Worker Data in the Spreadsheet

1. In the Batch Name field of the spreadsheet Workers042713Batch01.xlsx, replace the default batch name with the batch name Workers042713Batch01.

2. If your data includes flexfields, click Configure Flexfield to configure flexfield data. Otherwise, go to step 5 of this task.

3. In the Configure Flexfield window, select an attributes value and click OK.

4. See the Flexfields Reference tab for information about the configured flexfield.

5. Enter worker data in the spreadsheet.
   Ensure that you provide any required values and follow instructions in the spreadsheet for creating rows.

Importing Worker Data and Correcting Import Errors

Use the default values except where indicated.

1. In the workers spreadsheet, click Upload.

2. In the Upload Options window, click OK.
   As each row of data is uploaded to the Load Batch Data stage tables, its status is updated.

3. When uploading completes, identify any spreadsheet rows with the status Insert Failed, which indicates that the row was not imported to the stage tables.

4. For any row that failed, double-click the status value to display a description of the error.

5. Correct any import errors and click Upload again to import the remaining rows to the same batch.
   As rows are imported successfully to the stage tables, the data is loaded automatically to the application tables.

Reviewing and Correcting Load Errors

1. In the spreadsheet, click Refresh to display latest load status.
   Any errors that occur during the load process are reported in the spreadsheet.

2. Correct any load errors in the spreadsheet.

3. Repeat this process from Importing Worker Data and Correcting Import Errors until all spreadsheet rows are both imported and loaded successfully.

4. Close the spreadsheet.
   To load a second batch of worker users on the same date, increment the batch number in the spreadsheet and batch names (for example, Workers042713Batch02).
**Manage Users**

**Creating Users: Worked Example**

You can create users by entering basic person and employment data. A user account is created automatically for a person when you create the user record. You can assign the users Oracle Fusion Human Capital Management (HCM) and non-HCM data roles, each providing access to specific functions and data. This example demonstrates how to create a user and assign roles to the user.

**Note**

This user management functionality is available for HCM Foundation and Oracle Fusion Workforce Directory Management (WDM) users only.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>For whom are you creating the user record?</td>
<td>Gail Williams</td>
</tr>
<tr>
<td>What is the user account name?</td>
<td>Same as the e-mail ID, <a href="mailto:gail.williams@vision.com">gail.williams@vision.com</a></td>
</tr>
<tr>
<td>Where is Gail employed?</td>
<td>Gail is an employee of Vision Corporation, and works in the Human Resources (HR) department in the Canada office.</td>
</tr>
<tr>
<td>What roles must be provisioned to Gail?</td>
<td>Autoprovision the employee role. Gail is responsible for processing workers’ expense claims so provision the role Expense Claims Administrator manually to Gail.</td>
</tr>
</tbody>
</table>

**Prerequisites**

1. Create a role mapping called All Employees and enter the following conditions.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Person Type</td>
<td>Employee</td>
</tr>
<tr>
<td>Assignment Status</td>
<td>Active</td>
</tr>
</tbody>
</table>

In the role mapping you include the:

- Employee role, and select the **Autoprovision** option
- Expense Claims Administrator role, and select the **Self-requestable** option

**Creating a User**

1. On the Search Person page, click the **Create** icon to open the Create User page.
2. Complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name</td>
<td>Williams</td>
</tr>
<tr>
<td>First Name</td>
<td>Gail</td>
</tr>
<tr>
<td>E-Mail</td>
<td><a href="mailto:gail.williams@vision.com">gail.williams@vision.com</a></td>
</tr>
<tr>
<td>Hire Date</td>
<td>4/12/11</td>
</tr>
</tbody>
</table>

3. In the User Details region, leave the User Name field blank. The user name defaults to the user’s e-mail ID.

4. In the Employment Information region, select the person type Employee and complete the fields as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Employer</td>
<td>Vision Corporation</td>
</tr>
<tr>
<td>Business Unit</td>
<td>Vision Canada</td>
</tr>
<tr>
<td>Department</td>
<td>Human Resources</td>
</tr>
</tbody>
</table>

Assigning Roles to the User

1. Click Autoprovision Roles to provision the employee role to the user.
2. Click Add Role.
3. Search for and select the Expense Claims Administrator role.
4. Click Save and Close. The user account is created and the roles are assigned to the user immediately.

User Details System Extract Report

The Oracle BI Publisher User Details System Extract Report includes details of some or all Oracle Fusion Applications user accounts.

To run this report, you must have an HCM data role that provides view-all access to person records for the Human Capital Management Application Administrator job role.

To run the report:

1. Navigate to Tools - Reports and Analytics.
3. Select the User Details System Extract report.
4. In the report window, click More.
5. On the Oracle Business Intelligence page for the report, select Open to run the report immediately or Schedule to schedule the report.
**Parameters**

**User Population**

Enter one of the following values to identify the group of user accounts to include in the report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM</td>
<td>User accounts with an associated HCM person record.</td>
</tr>
<tr>
<td>TCA</td>
<td>User accounts with an associated TCA party account.</td>
</tr>
<tr>
<td>OIM</td>
<td>Accounts for users in the PER_USERS table who do not have an associated person number or party ID. OIM users are also referred to as implementation users.</td>
</tr>
<tr>
<td>ALL</td>
<td>HCM, TCA, and OIM users accounts.</td>
</tr>
</tbody>
</table>

**From Date**

Accounts for HCM and OIM users created on or after this date are included in the report. If you specify no From Date value, then accounts with any creation date are included, subject only to any To Date value that you specify.

From and to dates do not apply to the TCA user population; the report includes all TCA users if you include them in the report's user population.

**To Date**

Accounts for HCM and OIM users created on or before this date are included in the report. If you specify no To Date value, then accounts with any creation date are included, subject only to any From Date value that you specify.

From and to dates do not apply to the TCA user population; the report includes all TCA users if you include them in the report's user population.

**User Active Status**

Enter one of the following values to identify the user-account status.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Include active accounts, which belong to users with current roles.</td>
</tr>
<tr>
<td>I</td>
<td>Include inactive accounts, which belong to users with no current roles.</td>
</tr>
<tr>
<td>All</td>
<td>Include both active and inactive user accounts.</td>
</tr>
</tbody>
</table>

**Report Results**

The output is an XML-formatted file where user accounts are grouped by type, as follows:

- Group 1 (G_1) includes HCM user accounts.
- Group 2 (G_2) includes TCA party user accounts.
• Group 3 (G_3) includes OIM user accounts.

The information provided in the extract varies with the account type.

HCM User Accounts

Business Unit Name
The business unit from the primary work relationship.

Composite Last Update Date
The date when any one of a number of values, including assignment managers, location, job, and person type, was last updated.

Department
The department from the primary assignment.

Worker Type
The worker type from the user’s primary work relationship.

Generation Qualifier
The user’s name suffix (for example, Jr., Sr., or III).

Hire Date
The enterprise hire date.

Role Name
A list of roles currently provisioned to workers whose work relationships are all terminated. This value appears for active user accounts only.

Title
The job title from the user’s primary assignment.

TCA User Accounts

Organizations
A resource group.

Roles
A list of job, abstract, and data roles provisioned to the user.

Managers
The manager of a resource group.

OIM User Accounts

Start Date
The date from when the account existed.
FAQs for Manage Users

What happens if I send the user name and password?

An e-mail containing the user name and password is sent to the user’s primary work e-mail address. If the user has no primary work-email address, then the user name and password are sent to the primary work e-mail address of the user’s line manager, if available; otherwise, no notification is sent.

You can select **Send user name and password** only if these details have not already been sent for this user: the user name and password can be sent once only for any user. If this option is available for selection but you do not select it, then you can run the process Send User Name and Password E-Mail Notifications later to notify users of their user names and passwords.

Can I extract details of all Oracle Fusion Applications users?

Yes. The Oracle BI Publisher User Details System Extract report includes details of all user accounts or a specified subset. For example, you can produce a report showing inactive user accounts, accounts created between specified dates, or accounts associated with TCA parties only.

To run the report, you must have an HCM data role that provides view-all access to person records for the Human Capital Management Application Administrator job role.

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, and payroll flow 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.

---

**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, and payroll flow 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

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:

<table>
<thead>
<tr>
<th>Security Profile Name</th>
<th>HCM Security Profile Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View All People</td>
<td>Person</td>
<td>Identifies all person records in the enterprise</td>
</tr>
<tr>
<td>View Own Record</td>
<td>Person</td>
<td>Identifies the signed-on user’s own person record and the person records of that user’s contacts</td>
</tr>
<tr>
<td>View Manager Hierarchy</td>
<td>Person</td>
<td>Identifies the signed-on user’s line manager hierarchy</td>
</tr>
<tr>
<td>View All Workers</td>
<td>Person</td>
<td>Identifies the person records of all people who have a work relationship in the enterprise</td>
</tr>
<tr>
<td>View All Organizations</td>
<td>Organization</td>
<td>Identifies all organizations in the enterprise</td>
</tr>
<tr>
<td>View All Positions</td>
<td>Position</td>
<td>Identifies all positions in the enterprise</td>
</tr>
<tr>
<td>View All Legislative Data Groups</td>
<td>LDG</td>
<td>Identifies all LDGs in the enterprise</td>
</tr>
<tr>
<td>View All Countries</td>
<td>Country</td>
<td>Identifies all countries in the FND_TERRITORIES table</td>
</tr>
<tr>
<td>View All Document Types</td>
<td>Document Type</td>
<td>Identifies all document types in the enterprise</td>
</tr>
<tr>
<td>View All Payrolls</td>
<td>Payroll</td>
<td>Identifies all payrolls in the enterprise</td>
</tr>
<tr>
<td>View All Flows</td>
<td>Payroll Flow</td>
<td>Identifies all payroll flows in the enterprise</td>
</tr>
</tbody>
</table>

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.

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.

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.

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.

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.
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.

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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the name of the HCM data role?</td>
<td>HR Specialist ABC Industrial - Sales Department</td>
</tr>
<tr>
<td>Which job role will the HCM data role include?</td>
<td>Human Resource Specialist</td>
</tr>
<tr>
<td>Which person records do users need to access?</td>
<td>Users need to access the managed person records of:</td>
</tr>
<tr>
<td></td>
<td>• All workers in the sales department of ABC Industrial</td>
</tr>
<tr>
<td></td>
<td>• The emergency contacts, beneficiaries, and dependents of all workers in the sales department of ABC Industrial</td>
</tr>
<tr>
<td>Which public person records do users need to access?</td>
<td>All</td>
</tr>
<tr>
<td>Which organizations do users need to access?</td>
<td>All organizations of all types in ABC Industrial</td>
</tr>
<tr>
<td>Which positions do users need to access?</td>
<td>Vice President of Sales and all subordinate positions in the position hierarchy of ABC Industrial</td>
</tr>
<tr>
<td>Which countries do users need to see in lists of countries?</td>
<td>All</td>
</tr>
<tr>
<td>Which LDGs do users need to access?</td>
<td>The LDG for the legal employer ABC Industrial. This LDG is identified in an existing LDG security profile.</td>
</tr>
<tr>
<td>Which document types do users need to access?</td>
<td>All</td>
</tr>
<tr>
<td>Which payrolls do users need to access?</td>
<td>Payrolls for the legal employer ABC Industrial. These payrolls are identified in an existing payroll security profile.</td>
</tr>
<tr>
<td>Which payroll flows do users need to access?</td>
<td>Payroll flows for the legal employer ABC Industrial. These payroll flows are identified in an existing payroll flow security profile.</td>
</tr>
</tbody>
</table>
Summary of the Tasks

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Role</td>
<td>HR Specialist ABC Industrial - Sales Department</td>
</tr>
<tr>
<td>Job Role</td>
<td>Human Resource Specialist</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Security Profile</td>
<td>Create New</td>
</tr>
<tr>
<td>Name</td>
<td>ABC Industrial - All Organizations</td>
</tr>
<tr>
<td>Secure by organization hierarchy</td>
<td>Yes</td>
</tr>
</tbody>
</table>
2. In the Position region, complete the fields as shown in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Security Profile</td>
<td>Create New</td>
</tr>
<tr>
<td>Name</td>
<td>ABC Industrial Positions - Top Position Vice President of Sales</td>
</tr>
<tr>
<td>Secure by position hierarchy</td>
<td>Yes</td>
</tr>
</tbody>
</table>
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.
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Structure</td>
<td>Generic organization hierarchy</td>
</tr>
<tr>
<td>Organization Tree</td>
<td>ABC Industrial Organization Tree</td>
</tr>
<tr>
<td>Top Organization Selection</td>
<td>Use the assignment department</td>
</tr>
<tr>
<td>Include top organization</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Tree</td>
<td>ABC Industrial Positions</td>
</tr>
<tr>
<td>Top Position Selection</td>
<td>Specify top position</td>
</tr>
<tr>
<td>Position</td>
<td>Vice President of Sales</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Type</th>
<th>System Person Type</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>Employee</td>
<td>Restricted</td>
</tr>
<tr>
<td>System</td>
<td>Contingent worker</td>
<td>Restricted</td>
</tr>
<tr>
<td>System</td>
<td>Nonworker</td>
<td>Restricted</td>
</tr>
<tr>
<td>System</td>
<td>Pending worker</td>
<td>Restricted</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Security Profile Type</th>
<th>Employee</th>
<th>Contingent Worker</th>
<th>Line Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>View Own Record</td>
<td>View Own Record</td>
<td>View Manager Hierarchy</td>
</tr>
<tr>
<td>Public person</td>
<td>View All Workers</td>
<td>View All Workers</td>
<td>View All Workers</td>
</tr>
<tr>
<td>Organization</td>
<td>View All Organizations</td>
<td>View All Organizations</td>
<td>View All Organizations</td>
</tr>
<tr>
<td>Position</td>
<td>View All Positions</td>
<td>View All Positions</td>
<td>View All Positions</td>
</tr>
<tr>
<td>Legislative data group</td>
<td>View All Legislative Data Groups</td>
<td>View All Legislative Data Groups</td>
<td>View All Legislative Data Groups</td>
</tr>
<tr>
<td>Country</td>
<td>View All Countries</td>
<td>View All Countries</td>
<td>View All Countries</td>
</tr>
<tr>
<td>Document type</td>
<td>View All Document Types</td>
<td>View All Document Types</td>
<td>View All Document Types</td>
</tr>
<tr>
<td>Payroll Flow</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>View All Flows</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Security Profile</td>
<td>View All Organizations</td>
</tr>
<tr>
<td>Position Security Profile</td>
<td>View All Positions</td>
</tr>
<tr>
<td>Country Security Profile</td>
<td>View All Countries</td>
</tr>
<tr>
<td>LDG Security Profile</td>
<td>View All Legislative Data Groups</td>
</tr>
<tr>
<td>Person Security Profile</td>
<td>View Own Record</td>
</tr>
<tr>
<td>Person Security Profile</td>
<td>View All Workers</td>
</tr>
<tr>
<td>Document Type Security Profile</td>
<td>View All Document Types</td>
</tr>
</tbody>
</table>

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.
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.

To run the HCM Data Roles Configuration diagnostic test, select Settings and Actions - Troubleshooting - Run Diagnostic Tests.

**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.

To run the HCM Security Profile Configuration diagnostic test, select Settings and Actions - Troubleshooting - Run Diagnostic Tests.

**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.

To run the HCM Securing Objects Metadata diagnostic test, select **Settings and Actions - Troubleshooting - Run Diagnostic Tests**.

**Diagnostic Test Parameters**

**Securing Object**

Enter the name of an HCM securing object from the following table.

<table>
<thead>
<tr>
<th>Securing Object Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSON</td>
<td>Person</td>
</tr>
<tr>
<td>LDG</td>
<td>Legislative data group</td>
</tr>
<tr>
<td>POSITION</td>
<td>Position</td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>Organization</td>
</tr>
<tr>
<td>PAYROLL</td>
<td>Payroll</td>
</tr>
<tr>
<td>FLOWPATTERN</td>
<td>Payroll flow</td>
</tr>
<tr>
<td>DOR</td>
<td>Document type</td>
</tr>
<tr>
<td>COUNTRY</td>
<td>Country</td>
</tr>
</tbody>
</table>

If you do not enter the name of a securing object, then 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.

**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.
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.

**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 by selecting **Settings and Actions - Troubleshooting - Run Diagnostic Tests** to diagnose any issues.

The following diagnostic tests are available:

<table>
<thead>
<tr>
<th>Diagnostic Test Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM Data Roles Configuration</td>
<td>Verifies that the Manage HCM Data Roles task flow is configured successfully for a specified user.</td>
</tr>
<tr>
<td>HCM Data Role Detailed Information</td>
<td>Identifies any potential issues with a specified HCM data role.</td>
</tr>
<tr>
<td>HCM Security Profile Configuration</td>
<td>Verifies that the Manage Security Profiles task flows are configured successfully for a specified user.</td>
</tr>
<tr>
<td>HCM Security Profiles Detailed Information</td>
<td>Identifies any potential issues with one or all security profiles of a specified type.</td>
</tr>
<tr>
<td>HCM Securing Objects Metadata</td>
<td>Validates securing-object metadata for the HCM securing objects.</td>
</tr>
</tbody>
</table>

How can I access HCM audit data?

One approach is to have an HCM data role that includes both the Internal Auditor job role and one or more security profiles that identify the data to be...
accessed. For example, to access audit data for person and employment records, the HCM data role must include an appropriate person security profile (such as the predefined View All Workers security profile).

Alternatively, your enterprise may allow other job roles, such as human resource specialist, to access audit data for the auditable business objects that they can access. Such job roles must also be included in an HCM data role with one or more security profiles that identify the data to be accessed. This approach requires customization of the job role itself.
Payroll Product Usage: Critical Choices

Select the correct payroll product for each of your legislations to ensure that payroll-related features work correctly in your implementation. By default, each legislation's payroll product usage is blank, which means no payroll product is selected. If you are using or plan to use Oracle Fusion Global Payroll or Oracle Fusion Global Payroll Interface for a legislation, you must set the payroll product usage to the payroll product that the legislation is using.

The application detects which payroll products are available for each legislation. For predefined legislations, the payroll products available for selection are those delivered for each legislation. For custom-defined legislations, all payroll products are available for selection.

The three selectable values for payroll products are:

- Payroll
- Payroll Interface
- No value (other HCM products)

**Payroll**

Global Payroll legislations must have the payroll product set 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.

Select Payroll to ensure that your payroll definitions can only be associated with organization payment methods that include a payment source, which reduces potential problems during payment processing. For some localizations, the Payroll product usage setting controls country-specific features, such as enabling calculation cads for statutory deductions to be automatically generated as part of the new-hire process.
Global Payroll Interface

If you use Global Payroll Interface for a legislation, set the payroll product to Payroll Interface to ensure the correct set of element templates is available. Earnings elements created without this product usage setting will not automatically generate the associated features, such as the formulas and balances required when calculating gross earnings for employees.

No Value (Other HCM Products)

If you use neither Global Payroll nor Global Payroll Interface for a legislation, ensure that the value for payroll product is blank so that 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 product usage setting will include formulas and balances, which are required for payroll purposes but are unnecessary for HR purposes.

Setting Payroll Product Usage for Legislations: Worked Example

This example demonstrates how to configure legislations in the InFusion enterprise for payroll product usage.

The InFusion enterprise has employees in several countries. In the United States and United Kingdom, employees are paid using Oracle Fusion Global Payroll. In France, employees are paid through a third-party payroll provider and payroll-related data is extracted and sent to that provider using Oracle Fusion Global Payroll Interface. In China, InFusion stores only HR data in Oracle Fusion Applications and no information is used for payroll purposes.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>For each legislation, are there any plans to use payroll-related data for payroll</td>
<td>Yes, Global Payroll will be used for payroll processing in the US and UK, and</td>
</tr>
<tr>
<td>processing within Oracle Fusion or by transferring the data to a third-party payroll</td>
<td>data will be transferred using Global Payroll Interface in France.</td>
</tr>
<tr>
<td>provider?</td>
<td></td>
</tr>
<tr>
<td>Is any data for the legislation stored in HR for payroll purposes?</td>
<td>No, not for the China legislation.</td>
</tr>
</tbody>
</table>

Set Payroll Product Usage for Legislations

1. From the Setup and Maintenance work area, search for the Manage Payroll Product Usage task, and then click Go to Task.
2. In the row for the United States legislation, in the Selected Payroll Product list, select Payroll.
3. In the row for the United Kingdom legislation, in the Selected Payroll Product list, select Payroll.
4. In the row for the France legislation, in the Selected Payroll Product list, select Payroll Interface.

5. In the row for the China legislation, verify that the no payroll product is selected.

6. Click Save, and then click Done.
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 Enterprise Governance, Risk and Compliance (GRC) 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 GRC, an access point is the lowest level access for a particular application. In GRC, 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.

Note

AACG entitlements are logical groupings of security objects that represent Oracle Fusion Application access points such as roles or entitlement.

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.

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.

---

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 Oracle Enterprise Governance, Risk and Compliance (GRC) 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.

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.

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 predefine 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.

**Note**

SOD policies are not enforced at the time of role definition.

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

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 Enterprise Governance, Risk and Compliance (GRC) 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 in Oracle Enterprise Governance, Risk and Compliance (GRC). 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.

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.
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 Enterprise Governance, Risk and Compliance (GRC) 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.

<table>
<thead>
<tr>
<th>Status</th>
<th>Conflicts</th>
<th>Current State</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOD_CHECK_IN_PROGRESS</td>
<td>Unknown</td>
<td>Request sent to AACG and waiting for response</td>
</tr>
<tr>
<td>SOD_REMEDIATION_IN_PROGRESS</td>
<td>Conflict found</td>
<td>AACG detected violations and remediation is in progress</td>
</tr>
<tr>
<td>SOD_CHECK_APPROVED</td>
<td>No conflict found</td>
<td>No SOD violations found</td>
</tr>
<tr>
<td>SOD_CHECK_REJECTED</td>
<td>Conflict found</td>
<td>AACG detected violations that cannot be remediated</td>
</tr>
<tr>
<td>SOD_REMEDIATION_APPROVED</td>
<td>Conflict found</td>
<td>AACG detected violations that are approved</td>
</tr>
<tr>
<td>SOD_REMEDIATION_REJECTED</td>
<td>Conflict found</td>
<td>AACG detected violations that are rejected by approver</td>
</tr>
</tbody>
</table>

In the absence of an SOD exception, OIM provisions all relevant users.

**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.

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.
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 for Developers.

Overview


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 for Developers.

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 for Human Capital Management

Manage Approval Rules for Human Capital Management is a simplified, easy-to-use interface for configuring approval policies for many HCM tasks, including the following:

• Hire an employee
• Promote
• Transfer
• Terminate

Using this graphical interface, you select approvers for a task, arrange approvers in the required sequence, define approval rules for each approver, and configure conditions for each rule. You access the Manage Approval Rules interface through the Manage Approval Transactions page.

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 majority of HCM tasks, including the Hire an Employee, Promote, Transfer, and Terminate tasks using the Manage Approval Rules 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

**Managing HCM Approval Transactions: Explained**

Use the Manage Approval Transactions interface for searching approval transactions and launching the Manage Approval Rules interface. You can select the approval process to configure the approval rules defined for that approval flow. For example, you can search for the Hire an Employee process, select the Configure Rules option and edit the approval rules in the Manage Approval Rules interface. The Manage Approval Transactions interface also provides you with information on whether a process has failed and how many instances of the process have failed.

**Failed Processes**

Use the Manage Approval Transactions interface to search for approval processes that have failed. For example, you can search for a Create Grade transaction that is stuck in the system, and therefore a failed transaction. You can find the transaction and either withdraw or recover it. If you withdraw the transaction, then the process is cancelled and you can begin the create grade flow again. If you recover the process, then you fix the issues using the details from the Manage Approval Transactions page before resubmitting the approval.

**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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Enabled Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer (Line Manager)</td>
<td>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</td>
</tr>
<tr>
<td>Promotion (Line Manager)</td>
<td>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</td>
</tr>
<tr>
<td>Change Manager</td>
<td>Action, Action Reason</td>
</tr>
<tr>
<td>Change Location</td>
<td>Action, Action Reason, Location</td>
</tr>
<tr>
<td>Change Working Hours</td>
<td>Action, Action Reason, Assignment Category, Hourly Paid or Salaried, Worker Category</td>
</tr>
<tr>
<td>Terminate Work Relationship</td>
<td>Termination Action, Termination Reason, Notification Date, Recommended for Rehire, Rehire Recommendation Reason, Termination Date</td>
</tr>
<tr>
<td>Hire an Employee</td>
<td>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</td>
</tr>
<tr>
<td>Add a Nonworker</td>
<td>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</td>
</tr>
<tr>
<td>Task Description</td>
<td>Attributes</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Add a Contingent Worker</td>
<td>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</td>
</tr>
<tr>
<td>Add a Pending Worker</td>
<td>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</td>
</tr>
<tr>
<td>Create Work Relationship (if redirected from an Add Person task)</td>
<td>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, Worker Type</td>
</tr>
<tr>
<td>Manage Work Schedule Assignment</td>
<td>None</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>Task</th>
<th>Enabled Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Absence Records</td>
<td>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</td>
</tr>
<tr>
<td>Manage Document Record</td>
<td>Document Category, Document Country, Document Type</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Enabled Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Address</td>
<td>Address (all attributes), Phone Number (all attributes)</td>
</tr>
<tr>
<td>Change Marital Status</td>
<td>Address (all attributes), Marital Status, Phone Number (all attributes)</td>
</tr>
<tr>
<td>Create Employment Terms</td>
<td>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</td>
</tr>
<tr>
<td>Manage Employment</td>
<td>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</td>
</tr>
<tr>
<td>Manage Grades</td>
<td>Grade Code, Grade Name, Grade Status, Grade Step Name</td>
</tr>
<tr>
<td>Manage Grade Ladders</td>
<td>Grade Ladder Status, Grade Name, Step Rate Name, Step Rate Value</td>
</tr>
<tr>
<td>Manage Grade Rates</td>
<td>Grade Rate Name, Grade Rate Status, Grade Rate Type, Maximum Value, Midpoint Value, Minimum Value</td>
</tr>
<tr>
<td>Manage Jobs</td>
<td>Approval Level, Full Time or Part Time, Job Family, Job Function, Job Name, Management Level, Regular or Temporary, Status, Valid Grade</td>
</tr>
<tr>
<td>Manage Locations</td>
<td>Address (all attributes), Designated Receiver, Fax Number, Main Phone Number, Location Status, Ship-to-Site</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Organizations</td>
<td>Classification Code</td>
</tr>
<tr>
<td>Manage Person</td>
<td>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</td>
</tr>
<tr>
<td>Manage Positions</td>
<td>Bargaining Unit, Business Unit, Department, Entry Grade, Hiring Status, Job, Location, Regular or Temporary, Seasonal, Security Clearance, Valid Grades</td>
</tr>
</tbody>
</table>

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.
### 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.

<table>
<thead>
<tr>
<th>Transaction Event</th>
<th>Transaction Submitter</th>
<th>Approver: First-Level Manager</th>
<th>Approver: Second-Level Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routed for approval</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rejected</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Pushed back</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Committed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Configuration Option</th>
<th>Default Value</th>
<th>Effect of Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad hoc insertion of approvers</td>
<td>True</td>
<td>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.</td>
</tr>
<tr>
<td>Allow delegate</td>
<td>True</td>
<td>Approvers can delegate their approval responsibilities to other users. One approver replaces another, but the approver list is otherwise unaltered.</td>
</tr>
<tr>
<td>Allow pushback</td>
<td>True</td>
<td>An approver can push the transaction back to the previous approver, who thereby has a second opportunity to review the transaction.</td>
</tr>
<tr>
<td>Allow reassign</td>
<td>True</td>
<td>Any approver can reassign the approval to a different approver. The approval list is recalculated based on the new approver.</td>
</tr>
<tr>
<td>Allow request information</td>
<td>True</td>
<td>Approvers can request more information from another approver or the person who submitted the transaction.</td>
</tr>
<tr>
<td>Allow self-approval</td>
<td>False</td>
<td>The person who submits the transaction cannot approve it.</td>
</tr>
<tr>
<td>Allow withdraw</td>
<td>True</td>
<td>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.</td>
</tr>
<tr>
<td>On error notify</td>
<td>Human Resources Application Administrator</td>
<td>A Human Resources Application Administrator is notified automatically when an error occurs.</td>
</tr>
<tr>
<td>Period before task expires</td>
<td>None</td>
<td>Approval tasks do not expire.</td>
</tr>
<tr>
<td>Period before task escalates</td>
<td>None</td>
<td>Approval tasks are not escalated to other approvers.</td>
</tr>
<tr>
<td>Escalated approver</td>
<td>None</td>
<td>Approval tasks are not escalated to other approvers.</td>
</tr>
<tr>
<td>Repeated approver frequency</td>
<td>Once per approval</td>
<td>An approver receives one notification per transaction, even when the approver appears multiple times in the approver list.</td>
</tr>
<tr>
<td>Re-evaluate approver list</td>
<td>True</td>
<td>The approver list is regenerated after every response.</td>
</tr>
</tbody>
</table>
Rejection outcome | Stop all | When an approver rejects a transaction, the approval process stops and the transaction is canceled.

Managing HCM Approval Rules: Explained

Use the Manage Approval Transactions interface for searching transactions and launching the approval rules interface. Use the Manage Approval Rules 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 interface supports the following types of approvers:

- Management hierarchy
- Users
- Approval groups, which you define in BPM Worklist
- Position hierarchy
- Representatives, who are workers to whom responsibilities, such as benefits representative, are assigned
- Application role
- Job-level based line manager hierarchy
- Self auto approve

Position hierarchies and representatives are supported by the Manage Approval Rules interface only; they are not supported by BPM Worklist.

Supported HCM Tasks

You can use the Manage Approval Rules interface to configure approval policies for many tasks, including, but not limited to, 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**

You use BPM Worklist to configure notifications, including when notifications are issued, and process details, such as expiration and escalation policies. For any HCM tasks that are not available in the Manage Approval Transactions interface, you can use BPM Worklist to configure all aspects of approvals.

To use BPM Worklist, perform the task Manage Task Configurations for Human Capital Management.

**Approver Types: Explained**

You can include any number of approvers of various types in your approval sequence by dragging and dropping them into the approval flow. 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.

**Application Roles**

You can use any of the existing duty roles to include in your approval sequence. You cannot drag and drop an application role into the approval flow. If your
enterprise defines duty roles for security purposes, then you can enter the duty role to include them in the approval sequence. Users with job or data roles that inherit the duty role become transaction approvers.

**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.

**Note**

If you use a responsibility holder, then ensure that responsibility holders are already defined in the application. For example, if you include a HR representative as an approver for an employee process, then all employees must have HR representatives assigned to them.

**Job Level**

You can include a job level in your approval sequence.

Job level routings are based on the manager hierarchy defined in Oracle Fusion Human Capital Management. The approval list is generated based on the starting level specified in a rule and continues until an approver with a sufficient job level is found. The approval flow uses the job level defined in the Manage Jobs interface.

**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.
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.

<table>
<thead>
<tr>
<th>Approval Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval required</td>
<td>Notifications are issued to the identified approvers and their response is required.</td>
</tr>
<tr>
<td>Automatic approval</td>
<td>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 Set Outcome To attribute for manager hierarchies determines whether the transaction is approved or rejected.</td>
</tr>
<tr>
<td>FYI only</td>
<td>Notifications are issued to the identified approvers, but no response is expected.</td>
</tr>
<tr>
<td>No approval required</td>
<td>No notifications are issued and no approval is recorded for the transaction.</td>
</tr>
</tbody>
</table>

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 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.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Values</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Approver</td>
<td>• Requester’s first-level manager</td>
<td>Requester’s first-level manager</td>
</tr>
<tr>
<td></td>
<td>• User</td>
<td></td>
</tr>
<tr>
<td>Number of Levels</td>
<td>1 or higher</td>
<td>• 2, for line-manager hierarchies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1, for other types of manager hierarchies</td>
</tr>
<tr>
<td>Topmost Approver</td>
<td>• Requester’s first-level manager</td>
<td>Requester’s second-level manager, for line-manager hierarchies</td>
</tr>
<tr>
<td></td>
<td>• Requester’s second-level manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• User</td>
<td>Requester’s first-level manager, for other types of manager hierarchies</td>
</tr>
<tr>
<td>Initial Approvers to Skip</td>
<td>0, 1, 2</td>
<td>0</td>
</tr>
<tr>
<td>Set Outcome To</td>
<td>• Approve</td>
<td>Approve</td>
</tr>
<tr>
<td></td>
<td>• Reject</td>
<td></td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Values</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Levels</td>
<td>Minimum and maximum values relative to:</td>
<td>At most 1 relative to initial approver</td>
</tr>
<tr>
<td></td>
<td>• Initial approver</td>
<td>At least 1 relative to initial approver</td>
</tr>
<tr>
<td></td>
<td>• Requester</td>
<td>Absolute minimum and maximum values</td>
</tr>
<tr>
<td>Position Hierarchy</td>
<td>All position hierarchies in the enterprise</td>
<td>None</td>
</tr>
<tr>
<td>Initial Approver</td>
<td>All positions in the selected position hierarchy</td>
<td>None</td>
</tr>
<tr>
<td>Topmost Approver</td>
<td>All positions in the selected position hierarchy</td>
<td>None</td>
</tr>
</tbody>
</table>

**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 the Manage Approval Transactions interfaces.

The following table summarizes key decisions for this scenario.
<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who will approve employee hire requests?</td>
<td>• Managers in the Sales department.</td>
</tr>
<tr>
<td></td>
<td>• 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.</td>
</tr>
<tr>
<td>Which approval actions must approvers take?</td>
<td>• Managers must approve the hire.</td>
</tr>
<tr>
<td></td>
<td>• The human resources representative receives an approval notification for all hires, but no response is needed.</td>
</tr>
<tr>
<td>Can the required level of management approval vary?</td>
<td>The required level of approval varies with the grade of the new hire.</td>
</tr>
<tr>
<td></td>
<td>The requester’s:</td>
</tr>
<tr>
<td></td>
<td>• First-level manager approves the trainee grades 1 through 3</td>
</tr>
<tr>
<td></td>
<td>• Second-level manager approves the professional grades 4 through 6</td>
</tr>
<tr>
<td></td>
<td>• Third-level manager approves the senior grades 7 and above</td>
</tr>
</tbody>
</table>

**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 Transactions for Human Capital Management.
2. In the Search Results region, click **Go to Task**.
3. On the Manage Approval Transactions page, enter the search term Hire in the **Name** field.
4. Click **Search**.
5. In the Search Results region, select the Configure Rules option for 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. 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.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Operator</th>
<th>Attribute Value</th>
<th>And or Or</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>==</td>
<td>Sales</td>
<td>and</td>
</tr>
<tr>
<td>Grade</td>
<td>&lt;=</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

6. In the THEN statement for the SalesHiresTraineeGrades rule, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Approval required</td>
</tr>
<tr>
<td>Initial Approver</td>
<td>Requester’s first-level manager</td>
</tr>
<tr>
<td>Number of Levels</td>
<td>1</td>
</tr>
<tr>
<td>Topmost Approver</td>
<td>Requester’s first-level manager</td>
</tr>
<tr>
<td>Initial Approvers to Skip</td>
<td>0</td>
</tr>
</tbody>
</table>

**Defining the Approval Rule for Professional Grades**

1. Click Add Rule.

2. 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.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Operator</th>
<th>Attribute Value</th>
<th>And or Or</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>==</td>
<td>Sales</td>
<td>and</td>
</tr>
<tr>
<td>Grade</td>
<td>&gt;</td>
<td>3</td>
<td>and</td>
</tr>
<tr>
<td>Grade</td>
<td>&lt;=</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
6. In the THEN statement for the SalesHiresProfessionalGrades rule, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Approval required</td>
</tr>
<tr>
<td>Initial Approver</td>
<td>Requester’s first-level manager</td>
</tr>
<tr>
<td>Number of Levels</td>
<td>1</td>
</tr>
<tr>
<td>Topmost Approver</td>
<td>Requester’s second-level manager</td>
</tr>
<tr>
<td>Initial Approvers to Skip</td>
<td>1</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Operator</th>
<th>Attribute Value</th>
<th>And or Or</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>==</td>
<td>Sales</td>
<td>and</td>
</tr>
<tr>
<td>Grade</td>
<td>&gt;</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

6. In the THEN statement of the SalesHiresSeniorGrades rule, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Approval required</td>
</tr>
<tr>
<td>Initial Approver</td>
<td>Requester’s first-level manager</td>
</tr>
<tr>
<td>Number of Levels</td>
<td>1</td>
</tr>
<tr>
<td>Topmost Approver</td>
<td>Requester’s first-level manager or Requester’s second-level manager</td>
</tr>
<tr>
<td>Initial Approvers to Skip</td>
<td>2</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Operator</th>
<th>Attribute Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>==</td>
<td>Sales</td>
</tr>
</tbody>
</table>

5. In the THEN statement of the SalesHiresAllGrades rule, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>FYI only</td>
</tr>
<tr>
<td>User</td>
<td>Worker's representative</td>
</tr>
</tbody>
</table>

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.
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.

Note

The Define Application Toolkit Configuration task list is available in implementation projects only if the Application Toolkit Component Maintenance feature choice is selected.

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 and the Oracle Fusion Applications Extensibility Guide for Business Analysts.
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.

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 for Business Analysts, and perform the following steps in the specified order.
  - Create an Oracle Enterprise Scheduler job definition for the report.
  - Specify the job definition details in the report's properties.

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.

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.
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. Help that is embedded in the application, for example hints, can also be customized.

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. For Oracle Cloud, always leave this feature choice selected so that your users can access the Cloud Learning Center.

Important

For non-Cloud implementations only: Some help includes links to guides outside the help system. If you select this feature, then these links open guides on the Oracle Technology Network Web site. If you do not select this feature, then your system administrator must download the guides (http://download.oracle.com/docs/cds/E39540_01.zip) and put all the content from within the extracted E39540_01 folder 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. Only users with job roles containing the Application Help Text Administration duty role have access to customize help.

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 Application 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.

**Note**

Use the full URL, for example http://www.oracle.com, when creating links.

**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.

**Important**

Do not enable discussions until servers for discussions are up and running.

**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 Application 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 Application 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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of users do you need to limit help access to?</td>
<td>Human resources (HR) specialists</td>
</tr>
<tr>
<td>Is there a specific time period for which this access is needed?</td>
<td>No, the help files should always be viewed only by the HR specialists</td>
</tr>
<tr>
<td>Where do you want this group to appear in the list of values for help security groups?</td>
<td>First</td>
</tr>
</tbody>
</table>

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**.
3. Complete the fields, as shown in this table. Leave the start and end dates blank.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help Security Group</td>
<td>HR</td>
</tr>
<tr>
<td>Meaning</td>
<td>HR Only</td>
</tr>
<tr>
<td>Description</td>
<td>Viewing by HR specialists only</td>
</tr>
<tr>
<td>Display Sequence</td>
<td>1</td>
</tr>
</tbody>
</table>

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.
Common Applications Configuration: Maintain Common Reference Objects

Maintain Common Reference Objects: Overview

The Maintain Common Reference Objects task list contains Oracle 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.

For more information on configuring custom objects, see the Oracle Sales 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 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.

**Note**

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

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

Note

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

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 ledgers, 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.

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.

**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.

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.

**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.

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.

<table>
<thead>
<tr>
<th>Data security feature</th>
<th>Does what?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data security policy</td>
<td>Grants access to roles by means of entitlement</td>
</tr>
<tr>
<td>Role</td>
<td>Applies data security policies with conditions to users through role provisioning.</td>
</tr>
<tr>
<td>Data role template</td>
<td>Defines the data roles generated based on enterprise setup of data dimensions such as business unit.</td>
</tr>
<tr>
<td>HCM security profile</td>
<td>Defines data security conditions on instances of object types such as person records, positions, and document types without requiring users to enter SQL code.</td>
</tr>
<tr>
<td>Masking</td>
<td>Hides private data on non-production database instances</td>
</tr>
<tr>
<td>Encryption</td>
<td>Scrambles data to prevent users without decryption authorization from reading secured data</td>
</tr>
</tbody>
</table>

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.
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.

**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.

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.

**Important**

The duty roles inherited by the job role can be moved and job roles reassembled without having to modify the data security.

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.

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

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.

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.

Tip

An XML filter can be effective in downstream processes such as business intelligence metrics. A SQL predicate cannot be used in downstream metrics.

Securing Data Access: Points to Consider

Oracle Fusion Applications supports securing data through role-based access control (RBAC) by the following methods.

<table>
<thead>
<tr>
<th>Method of securing data</th>
<th>Reason</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data roles apply explicit data security policies on job and abstract roles</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Data security policies</td>
<td>Define data access for application roles and provide inheriting job and abstract roles with implicit data security</td>
<td>Projects</td>
</tr>
</tbody>
</table>
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.
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.

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).

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.

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.

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.

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.

**Set Activity Stream Options**

**Setting Activity Stream Preferences: Procedures**

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 all activity stream regions for all users across your site. Individual users can still override your settings through Activity Stream preferences.

**Setting Preferences**

Using the activity stream preferences you can specify who can view your activity stream, for which users, services, and spaces to track activities, and the activities to show in an activity stream task flow.

Perform the following steps to set the preferences.

1. In the **Setup and Maintenance** work area, search for the Set Activity Stream Options task and open it.
2. On the preferences page, click **People** and select one of the following options:
   - Only Me - to display your own activities in your view of the activity stream.
   - Me and My Connections - to display your activities and the activities of your connections in your view of the activity stream.
   - No Personal - to hide any user activity in your view of the activity stream, including your own.

**Tip**

This setting relates only to the activities that stream from the people connections service. Such activities include making connections, posting feedback and messages, adjusting your profile, and so on.
3. Click **Spaces** and select one of the following options:

- **All Spaces** - to stream activities from all available spaces.
- **My Spaces** - to stream activities from the spaces of which you are a member.
- **No Spaces** - to avoid streaming any activities from spaces other than the home space.

4. Click **Service Categories** and select the services for which you want to track and display the activities.

**Tip**

If you select **No Spaces** under **Spaces** (in the earlier step), the services do not publish any activity to your view of the activity stream, even if you select the services here.

5. Click **Privacy** and select one of the following options:

- **Everyone** - all users, whether they are signed in or not, can see your view of the activity stream.
- **Authenticated Users** - all users who are signed in can see your view of the activity stream.
- **My Connections** - everyone connected to you can see your view of the activity stream.
- **Myself** - only you can see your view of the activity stream.

6. Click **Comments and Likes** and select the required options.

7. Click **Save**.

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**Manage Menu Customizations**

**Design Time Menu Customizations: Highlights**

The menu customization feature provides several options to add, modify, and organize the Navigator and home page menus during design time. You must have developer rights to perform these customizations.

**Note**

Design time menu customizations are not applicable to Oracle Cloud implementations.

An overview of customizing the Navigator menu and home page is provided in the Oracle Fusion Applications Extensibility Guide.
Customizations

- Use Oracle JDeveloper to customize the Navigator and home page menus at design time.

  See: Customizing Menus

- Define translations for your customizations in the locales you support.

  See: Translating Menu Customizations

- Customize the page template to display the Navigator menu groups as separate menus, each of them displaying their list of menu items. Refer to the Oracle Fusion Applications Developer's Guide.

  See: Rendering the Navigator Menu as Dropdown Buttons

Manage Audit Policies

Managing Audit Policies: Explained

Auditing is used to monitor user activity and all configuration, security, and data changes that have been made to an application. Auditing involves recording and retrieving information pertaining to the creation, modification, and removal of business objects. All actions performed on the business objects and the modified values are also recorded. The audit information is stored without any intervention of the user or any explicit user action.

Use audit policies to select specific business objects and attributes to be audited. The decision to create policies usually depends on the type of information to be audited and to the level of detail that is required to be reported.

Enabling Audit Functionality

To enable audit, ensure that you have administrative privileges. For Oracle Fusion Applications, you must configure the business objects and select the attributes before enabling audit. If you enable audit without configuring the business objects, auditing remains inactive. By default, auditing is disabled for all applications.

To enable auditing for Oracle Fusion Middleware products, select one of the levels at which auditing is required for that product. The audit levels are predefined and contain the metadata and events to be audited. For more information, refer to the Oracle Fusion Middleware documentation and also the Oracle Enterprise Repository for Oracle Fusion Applications at http://fusionappsoer.oracle.com.

If you do not want an application to be audited, you can stop the audit process by setting the Audit Level option to None. While viewing the audit report for that application, you can specify the period during which auditing remained enabled.
Configuring Audit Business Object Attributes: Points to Consider

Audit allows you to track the change history of particular attributes of a business object. However, those objects and their attributes must be selected for audit and auditing must be enabled for that application. Your configuration settings determine which attributes to audit for a given object, and when the audit starts and ends. Auditing takes into account all the create or insert, update, and delete operations performed on an object and its attributes.

To configure audit business object attributes, navigate to the Manage Audit Policies page in the Setup and Maintenance work area.

Selecting an Application

To set up auditing, you must select a web application that contains the required business objects that can be audited. From the list of business objects, select those business object that you want to audit. Selecting a business object also displays its attributes that are enabled for auditing.

Selecting Attributes

For each selected business object to be audited, select the corresponding attributes to include in the audit. All attributes that belong to that object are by default selected for audit and appear on the user interface. However, you can add or remove attributes from the list. When you remove an attribute from the list, you stop auditing it even when the parent object is selected for audit. So, if you want an attribute to be audited, you must add it to the list.

Note

If the object selected in an audit hierarchy is also a part of several other audit hierarchies, the attribute configuration for that object is applicable to all the hierarchies in that application.

Starting and Stopping Audit

The business object is ready for audit after you select its attributes and save the configuration changes. However, to start auditing, the audit level for Oracle Fusion Applications must be set to Auditing on the Manage Audit Policies page.

To stop auditing an object, you can deselect the entire object and save the configuration. As a result, all its selected attributes are automatically deselected and are not audited. To continue to audit the business object with select attributes, deselect those attributes that are not to be audited.

When end-users view the audit history for an application, they can specify the period for which they want the results. Therefore, it is important to note when you start and stop auditing an application. For example, today if end-users intend to view the audit history of an object for the previous week, but auditing
for that object was stopped last month, they would not get any audit results for that week because during the entire month that object was not audited. Even if you enable audit for that object today, end-users cannot get the wanted results because audit data until today is not available.

**Configuring Audit: Highlights**

You can set up auditing for Oracle Fusion Applications using the Manage Audit Policies page in the Setup and Maintenance work area of Oracle Fusion Applications.

To set up auditing for Oracle Fusion Middleware products, you must select the level of auditing that maps to a predefined set of metadata and events that have to be audited. Information on configuring audit for Oracle Fusion Middleware products is provided in Oracle Fusion Middleware guides.

You can also create a configuration file and deploy it to audit a specific Oracle Fusion Middleware product. The configuration details for Oracle Fusion Middleware products are available in the form of audit-specific assets that can be used to create the configuration file (config.xml). For more information, see the Oracle Enterprise Repository for Oracle Fusion Applications at http://fusionappsoer.oracle.com, and search with Audit as the Asset Type to get the list of audit-specific assets.

**Oracle Fusion Middleware Products**


  See: Auditing Web Services

**Oracle Fusion Security Products**

- Configure business objects to enable auditing in Oracle Fusion security products. Refer to Oracle Fusion Middleware Application Security Guide.

  See: Oracle Fusion Middleware Audit Framework Reference

**Manage Oracle Social Network Objects**

**Managing Oracle Social Network Objects: Explained**

Use the **Manage Oracle Social Network Objects** task for managing the Oracle Social Network Objects. The integration of Oracle Social Network Cloud Service with applications and business processes brings key attributes from the applications to share, socialize, and update information. This helps in making better business decisions based on additional information that you obtain and analyze within your social network environment.
Use the Manage Oracle Social Network Objects page to set up and define:

- The business objects and attributes to enable
- The enablement method for social network integration with Oracle Fusion Applications

You can access the Manage Oracle Social Network Objects page by starting in the Setup and Maintenance Overview page and searching for the task named Manage Oracle Social Network Objects.

Use social network to:

- Discuss projects and plans in public forums
- Maintain:
  - Membership groups
  - Activity feeds of the people you choose
- Facilitate:
  - One-on-one Conversations
  - Reviews
  - Document sharing

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**Note**

Oracle Social Network Cloud Service is currently available in Cloud implementations only.

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An important aspect of managing Oracle Social Network objects is enabling business objects for integration.

**Enabling Business Objects for Integration**

A business object can't be shared within social network until a functional administrator or implementor:

- Accesses the Manage Oracle Social Network Objects page in Oracle Fusion Applications
- Enables the business object for social network integration

**Options for Enabling Oracle Social Network Objects: Explained**

To enable business objects and apply attributes for Oracle Social Network Cloud Service integration with Oracle Fusion Applications, use the Manage Oracle Social Network Objects task.

In the Manage Oracle Social Network Objects page, you can:

- Enable an object
To access the **Manage Oracle Social Network Objects** page:

1. Search for the **Manage Oracle Social Network Objects** task in the Setup and Maintenance work area.
2. In the Search Results section, click the **Go to Task** icon to open the **Manage Oracle Social Network Objects** page.

**Note**

Custom objects and attributes created in Application Composer in the mainline are also displayed on the **Manage Oracle Social Network Objects** page. You can enable these objects and attributes for social network integration.

**Enable Object**

To enable a business object:

1. Access the **Manage Oracle Social Network Objects** page.
2. In the **Business Objects** section, select a business object, click **Enable Object**, and select one of the enablement options. The business objects are grouped by modules. The available enablement options are:
   - **Manual**: (Recommended) Empowers the user to decide whether to share each instance of the object with social network.
   - **Automatic**: Automatically sends the newly enabled object instances and updates to social network.
   - **No**: Does not send any information on object instance to social network. This is the default option.
3. Click **OK**.

This enables the selected business object, and empowers the user to decide whether to share each instance of the object with social network.
Note

After you enable an object, you must enable one or more attributes in the Attributes section of the Manage Oracle Social Network Objects page. Updates to enabled attributes are sent to social network.

Disable Object

To disable a business object:

1. Access the Manage Oracle Social Network Objects page.
2. In the Business Objects section, select a business object, and click Disable Object.
3. Save your changes.

This disables the selected business object by updating the enablement option as No.

Enable All

To enable all business objects:

1. Access the Manage Oracle Social Network Objects page.
2. In the Business Objects section, click Enable All.
3. Save your changes.

This enables all business objects in bulk, and updates the enablement option of all business objects as Manual.

Note

• After you enable business objects, you must enable one or more attributes in the Attributes section of the Manage Oracle Social Network Objects page. Updates to the enabled attributes are sent to social network.
• If you enable a business object, but don’t configure any attributes for the enabled business object, no attributes are sent to social network during create and update. The only exception is that some internal bookkeeping information are sent. Deletes are sent as usual.

Status Column

The Status column in the Business Objects table visually indicates:

• Whether a business object is enabled
• Which enabled business objects don’t yet have an enabled attribute assigned

The status indicators include:

• A check mark, which indicates that you have configured attributes for an enabled business object
• A warning sign, which indicates that you have not configured any attributes for an enabled business object
Enable Business Object Attributes

To enable business object attributes:

1. In the Attributes section, click Add to display the Select Attributes dialog where you can select attributes to add to the table.
2. Select an attribute name in the table, and select the Enabled check box to enable the attribute.
3. Click OK.
4. Save your changes.

In the Attributes table, you can also:

- Click View to view a list of all attributes that are enabled.
- Click Remove to remove attributes from the table.
- Hover over the Attribute Information icon displayed next to descriptive flexfield attributes to view information about the attributes.

FAQs for Manage Oracle Social Network Objects

What happens if I update translations?

When you update translations, you send translations for business objects with the enablement option as Manual or Automatic to Oracle Social Network Cloud Service. On updating translations, you also:

- Synchronize the newly translated text from Oracle Fusion Applications so that it can be used within social network. This means you can:
  - Install and enable a new language.
  - Take a language patch at any time.
  - Send attribute labels and business object names to social network for use in its user interface.

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 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. To create or edit a message, navigate to the Manage Messages page in the Setup and Maintenance work area.

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 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.
You can use Oracle Sales Cloud' Computer Telephony Integration (CTI) 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 CTI:

- Normal call flow
- Interaction Records and Notes
- Operational Notes

Note

CTI 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.

Normal Call Flow

CTI 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.

Note

CTI 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**

CTI 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:

<table>
<thead>
<tr>
<th>OWLCS Call Status</th>
<th>Resolution Code in Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>CallConnected</td>
<td>CALL ANSWERED</td>
</tr>
<tr>
<td>CallAborted</td>
<td>FAILED</td>
</tr>
<tr>
<td>CallHangUp</td>
<td>FAILED</td>
</tr>
<tr>
<td>CalledPartyBusy</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>CalledPartyNoAnswer</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>CalledPartyNotReachable</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>CallingPartyBusy</td>
<td>FAILED</td>
</tr>
<tr>
<td>CallingPartyNoAnswer</td>
<td>FAILED</td>
</tr>
<tr>
<td>CallingPartyNotReachable</td>
<td>FAILED</td>
</tr>
</tbody>
</table>

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 CTI call-back. When this happens, two different scenarios could occur:
• If your phone is configured for busy-forward-all-to-voice-mail, the CTI 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 CTI 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.

Oracle Sales Cloud CTI: Top Tasks

Oracle Sales Cloud Computer Telephony Integration (CTI) 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 CTI feature uses Oracle WebLogic Communication Services, OWLCS, to enable communications. Applications that provide the CTI functionality do so primarily through contextual actions.

Additionally, CTI utilizes Oracle Sales Cloud 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.

CTI integrates with your telephony environment and must be manually enabled in your deployment. This topic highlights what is required to set up the CTI feature and to implement logging of the calls made using the CTI feature.

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 Oracle 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 CTI. There is an optional task, separate from the set up task list, required for implementing Interaction logging.

Information about implementing CTI can be found in the Oracle Sales Cloud Administrator’s Guide. Detailed information about configuring and maintaining WebLogic Communication Services is found in the Oracle WebLogic Communication Services Administrator’s Guide

**Configure and Deploy WebLogic Server**

- Deploy WebLogic Communication Services: After the Oracle WebLogic communication server is deployed, this manual task activates the server.
  
  See: Oracle WebLogic Communication Services Administrator's Guide

**Integrate Communications Services**

- Integrate WebLogic Communication Services with Telephony Network: This manual task integrates communications within the telephony environment. OWLCS must be configured to interface with the specific characteristics of the telephony network.
  
  See: Managing Oracle WebLogic Communication Services for CTI Functionality

**Specify the Domain and Address**

- Register a URL for the telephony gateway or soft switch for SIP domain: This task defines the Server protocol, defaulted to http, the external server host address and external server port address. The Associated Modules section is not required for setup. You can also perform this as a manual task using Topology Manager to configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by CTI to correctly form the SIP addresses required by WebLogic Communication Services.
  
  See the link to Configuring PSTN Gateway Address Using Topology Manager: Worked Example.

**Enable Click-to-Dial**

- After configuring the server and defining the SIP domain, perform the Enable Click-to-Dial task. This task sets the value of the profile option Enable Click-to-Dial to ‘Yes.’

**Call Logging via Interactions**

- To initiate the Interaction based logging for CTI, set the profile option Call Interaction Logging Enabled to ‘YES.’

**Configuring PSTN Gateway Address Using Topology Manager: Worked Example**

This example demonstrates how, during the implementation of the Register URL for the telephony gateway or soft switch for SIP domain task,
you must manually configure the PSTN gateway address by registering HzCTDPstnGatewayApp to a given environment using Oracle Fusion Topology Registration.

These steps configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click-to-Dial to correctly form the SIP addresses required by WebLogic Communication Services.

For example: SIP:+1650-555-1212@pstn_gateway.oracle.com;user=phone where pstn_gateway.oracle.com is the SIP domain. The SIP domain can also be expressed in the format 10.1.1.1 (IP address).

Configuring PSTN using the Topology Manager

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>HzCTDPstnGatewayApp</td>
</tr>
<tr>
<td>Server Protocol</td>
<td>SIP</td>
</tr>
<tr>
<td></td>
<td>This field is ignored by click-to-dial. Oracle WebLogic Communication Service (OWLCS) always uses the SIP protocol.</td>
</tr>
<tr>
<td>External Server Host</td>
<td>10.143.167.91 (Used as an example)</td>
</tr>
<tr>
<td></td>
<td>A host name can be used instead of an IP address.</td>
</tr>
<tr>
<td>External Server Port</td>
<td>0 (Used as an example)</td>
</tr>
<tr>
<td></td>
<td>This field is ignored by Click-to-Dial.</td>
</tr>
</tbody>
</table>

6. Click Save and Close.
Common Applications Configuration: Define Applications Core Configuration

Define Applications Core Configuration: Overview

The Define Applications Core Configurations task list contains the Oracle Middleware Extensions for Applications (Applications Core) tasks that support implementation of common functionality such as lookups, profile options, document sequences, and so on.

Use this task list to manage configuration objects that are defined centrally and shared across applications, in addition to those that are classified under the Maintain Common Reference Objects task list. You can search for this task list in the Setup and Maintenance work area.

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.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Lookup Code</th>
<th>Meaning</th>
<th>Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAR_STATUS</td>
<td>M</td>
<td>Married</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>Single</td>
<td></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Allowed Task</th>
<th>User</th>
<th>Extensible</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deleting a lookup type</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Inserting new codes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Updating start date, end date, and enabled fields</td>
<td>Yes</td>
<td>Yes, only if the code is not predefined data</td>
<td>No</td>
</tr>
<tr>
<td>Deleting codes</td>
<td>Yes</td>
<td>Yes, only if the code is not predefined data</td>
<td>No</td>
</tr>
<tr>
<td>Updating tags</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Updating module</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Lookup</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>Lists the available codes and translated meanings</td>
</tr>
<tr>
<td>Set enabled</td>
<td>Additionally associates a reference data set with the lookup codes</td>
</tr>
<tr>
<td>Common</td>
<td>Legacy lookups</td>
</tr>
</tbody>
</table>

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.
For more information on the predefined lookups and lookup codes, see assets with the Lookup type in the Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

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.

Note
You can only create or edit the lookup codes for a particular lookup type if its customization level supports it.

Creating a Lookup Type Called COLORS
Your enterprise needs a list of values for status to be used on various objects such as processes or users. The lookups are colors, so the lookup type you create is COLORS.

<table>
<thead>
<tr>
<th>Lookup type parameters</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lookup type name</td>
<td>COLORS</td>
</tr>
<tr>
<td>Meaning</td>
<td>Status</td>
</tr>
<tr>
<td>Description</td>
<td>Status by color</td>
</tr>
<tr>
<td>Module</td>
<td>Oracle Middleware Extensions for Applications</td>
</tr>
</tbody>
</table>

The lookup codes you define for the COLORS lookup type are, BLUE, RED, GREEN, and YELLOW.

<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Meaning</th>
<th>Enabled</th>
<th>Display Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLUE</td>
<td>Urgent</td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>RED</td>
<td>Stop</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>GREEN</td>
<td>Go</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Caution</td>
<td>Yes</td>
<td>2</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Displayed Value</th>
<th>Hidden ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>RED</td>
</tr>
<tr>
<td>Caution</td>
<td>YELLOW</td>
</tr>
<tr>
<td>Go</td>
<td>GREEN</td>
</tr>
</tbody>
</table>
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.

Understanding the Transaction Table
When users enter one of the values from the list of values for the lookup type COLORS, the transaction table records the lookup code. In this example, the code is stored in the Status column

<table>
<thead>
<tr>
<th>Transaction number</th>
<th>User name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jane</td>
<td>RED</td>
</tr>
<tr>
<td>2</td>
<td>Bob</td>
<td>YELLOW</td>
</tr>
<tr>
<td>3</td>
<td>Alice</td>
<td>BLUE</td>
</tr>
</tbody>
</table>

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.

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.

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.
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.

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 lookups 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.

**Note**
A lookup type and its codes can only be defined in one lookup view.

**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.

**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.

<table>
<thead>
<tr>
<th>Area of Difference</th>
<th>Lookup Type</th>
<th>Value Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of values</td>
<td>Static</td>
<td>Dynamic if Table validation type</td>
</tr>
<tr>
<td>Validation of values</td>
<td>One to one match of meaning to code included in a lookup view, or through the determinant of a reference data set</td>
<td>By format or inclusion in a table</td>
</tr>
<tr>
<td>Format type of values</td>
<td>char</td>
<td>varchar2, number, and so on</td>
</tr>
<tr>
<td>Length of value</td>
<td>Text string up to 30 characters</td>
<td>Any type of variable length from 1 to 4000</td>
</tr>
<tr>
<td>Duplication of values</td>
<td>Never. Values are unique.</td>
<td>Duplicate values allowed</td>
</tr>
<tr>
<td>Management</td>
<td>Managed by both administrators and end-users, except system lookups or predefined lookups at the system customization level, which cannot be modified.</td>
<td>Maintained by administrators, except some product flexfield codes, such as GL for Oracle Fusion General Ledger, which are maintained by end users</td>
</tr>
</tbody>
</table>

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.

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, such as confirmations and field validations, are managed either in the Oracle Application Development Framework or through message resource bundles used for translation.

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. To create or edit a message, navigate to the Manage Messages page in the Setup and Maintenance work area.

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.
Common Applications Configuration: Define Applications Core Configuration

- 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 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.

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.

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.

**Important**

Use this type of sequencing only if necessary because it may affect the performance of the system and slow down transaction processing.

**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.

**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.

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.

---

**Note**

Products that implement document sequencing have specifications about its usage. Refer to the corresponding product documentation for specific details and also to determine if there are any restrictions or configuration prerequisites.

---

**Creating and Editing Document Sequences**

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. 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.

**Note**

For specific information on working with the predefined tree structures that exist in an Oracle Fusion application, refer to the specific product documentation.

**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.

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft</td>
<td>Yet to be published or is in a modified state.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Validator</th>
<th>Description (what is checked)</th>
<th>Possible Cause for Validation Failure</th>
<th>Suggested Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restrict By Set ID</td>
<td>On the Manage Tree Structures: Specify Data Sources page, if the Set ID check box is selected to enable the Restrict Tree Node List of Values Based on option for 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.</td>
<td>Even when the check box is selected, one or more of its data source view objects does not contain a reference data set attribute.</td>
<td>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.</td>
</tr>
</tbody>
</table>
| 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 FND_TREE_NODE_RF or a custom table. | • The specified table does not exist in the database.  
• The specified table does not contain the same columns as the FND_TREE_NODE_RF table. | Correct the row flattened table definition. |
| Available Label Data Sources | On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the **Labeling Scheme** list box, 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 **None** from the **Labeling Scheme** list box. | • Any of the specified label data source view objects do not exist.  
• Any of the specified label data source view objects do not have primary keys.  
• When a label data source view object is initially defined, the database registers the primary keys for the view object. If the view object is later modified such that its primary keys no longer match the primary keys that were registered earlier, this validation fails.  
• Correct the specified label data source view object.  
• Correct the primary keys of the specified label data source view object.  
• Either correct the primary keys in the label data source view object to match the primary keys that were earlier registered in **FND_TS_DATA_SOURCE**, or correct the primary keys registered in that table to match the new view object definition. |
| Available Data Sources | Each data source view object specified for the tree structure must be accessible, and all its primary key attributes must be valid. | • Any of the specified data source view objects do not exist.  
• When a data source view object is initially defined, the database automatically registers the primary keys for the view object if the **Use non-defined primary key columns** 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.  
• The **Use non-defined primary key columns** 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.  
• 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. | • Correct the specified data source view object.  
• Correct the duplicate column in the registered primary keys.  
• Correct the primary keys of the specified data source view object.  
• Correct any mismatch in data types. |
| **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 FND_TREE_NODE_CF or a custom table.** | **• The specified table does not exist in the database.**<br>**• The specified table does not contain the same columns as the FND_TREE_NODE_CF table.** | **Correct the column flattened table definition.** |
| **Restrict by Date** | **On the Manage Tree Structures: Specify Data Sources page, if the Date Range check box is selected to enable the Restrict Tree Node List of Values Based on option for a tree structure, each 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 FND_TREE_NODE or a custom table.** | **• No table is specified in the Tree Node Table field.**<br>**• The specified table does not exist in the database.**<br>**• The specified table does not contain the same columns as the FND_TREE_NODE table.** | **Correct the tree node table definition.** |
| **Allow Node Level Security** | **If the Allow Node Level Security 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...
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.

**Note**

Parameter values customized at the tree level override the default values specified at the tree-structure level.

The data source parameters are applied to any tree version belonging to that data source, when performing node operations on the tree nodes. Data source parameters also provide an additional level of filtering for different tree structures. The tree structure definition supports three data source parameter types.

- **Bound Value**: Captures any fixed value, which is used as part of the view criteria condition.
- **Variable**: Captures and binds a dynamic value that is being used by the data source view object. This value is used by the WHERE condition of the data flow.
- **View Criteria**: Captures the view criteria name, which is applied to the data source view object.
You can also specify which of the data source parameters are mandatory while creating or editing the tree structure.

View objects from the 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.appcore.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.

<table>
<thead>
<tr>
<th>Labeling Scheme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>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.</td>
</tr>
<tr>
<td>Group</td>
<td>Labels that you can arbitrarily assign to tree nodes.</td>
</tr>
<tr>
<td>Depth</td>
<td>Labels that are automatically assigned based on the depth of the tree node within the tree. No manual assignment is performed.</td>
</tr>
</tbody>
</table>

**Note**

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.

<table>
<thead>
<tr>
<th>Validator</th>
<th>Description (what is checked)</th>
<th>Possible Cause for Validation Failure</th>
<th>Suggested Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Date</td>
<td>The effective start and end dates of the tree version must be valid.</td>
<td>The effective end date is set to a value that is not greater than the effective start date.</td>
<td>Modify the effective start and end dates such that the effective start date is earlier than the effective end date.</td>
</tr>
<tr>
<td><strong>Root Node</strong></td>
<td>On the Manage Tree Structures: Specify Data Sources page, if the <strong>Allow Multiple Root Nodes</strong> check box for the <strong>Restrict Tree Node List of Values Based on</strong> 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.</td>
<td>Even if the check box is deselected, the tree version has multiple root nodes.</td>
<td>Modify the tree version such that there is exactly one root node.</td>
</tr>
<tr>
<td><strong>Data Source Max Depth</strong></td>
<td>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 <strong>Maximum Depth</strong> field is set to <strong>Unlimited</strong>.</td>
<td>The tree version has data at a depth greater than the specified depth limit on one or more data sources.</td>
<td>Modify the tree version such that all nodes are at a depth that complies with the data source depth limit.</td>
</tr>
<tr>
<td><strong>Duplicate Node</strong></td>
<td>On the Data Source dialog box, if the <strong>Allow Duplicates</strong> 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.</td>
<td>Even when the check box is deselected, the tree version contains duplicate nodes.</td>
<td>Remove any duplicate nodes from the tree version.</td>
</tr>
</tbody>
</table>
| Available Node | All nodes in the tree version should be valid and available in the underlying data source. | • 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.  
• The tree version contains a tree reference node, which references another tree version that does not exist. | Remove any orphaned nodes from the tree version. Update tree reference nodes so that they reference existing tree versions. |
<p>| 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. |</p>
<table>
<thead>
<tr>
<th>SetID Restricted Node</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On the Manage Tree Structures: Specify Data sources page, if the Set ID check box is selected to enable the</strong> <strong>Restrict Tree Node List of Values Based on</strong> 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.</td>
</tr>
<tr>
<td><strong>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.</strong></td>
</tr>
<tr>
<td><strong>Modify the tree version such that all nodes in the tree have data sources with reference data set matching that of the tree.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Label Enabled Node</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the Labeling Scheme list box, all nodes should have labels. This restriction does not apply when you select None from the Labeling Scheme list box.</strong></td>
</tr>
<tr>
<td><strong>The tree structure has a labeling scheme but the tree version has nodes without labels.</strong></td>
</tr>
<tr>
<td><strong>Assign a label to any node that does not have a label.</strong></td>
</tr>
<tr>
<td>Date Restricted Node</td>
</tr>
</tbody>
</table>

| Multiple Active Tree Version | On the Manage Tree Structures: Specify Definition page, if the **Allow Multiple Active Tree Versions** 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. | Even when the check box is not selected, there is more than one active tree version in the tree for the same date range. | Set no more than one tree version to Active within the same date range and set the others to inactive or draft status. |

| Range Based Node | On the Data Source dialog box, if the **Allow Range Children** 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. | Even when the check box is not selected, there are range-based nodes from a data source. | Ensure that any range nodes in your tree version are from a data source that allows range children. |
### Terminal Node

| On the Data Source dialog box, if the **Allow Use as Leaves** check box 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 **Use All Values** option is selected to set the **Usage Limit** for the data source, every value in the data source must appear as a node in the tree. This restriction does not apply if **None** option is selected. | Even if the **Use All Values** 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.

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>Profile Option Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>User preferences</td>
<td>Settings to provide access to social networking features</td>
</tr>
<tr>
<td>Installation information</td>
<td>Setting to identify the location of a portal</td>
</tr>
<tr>
<td>Configuration choices</td>
<td>Settings to change user interface skins and behaviors</td>
</tr>
<tr>
<td>Processing options</td>
<td>Settings to affect how much information to log either for an entire site or a specific user</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Profile Option Level</th>
<th>Value of the Profile Option Level</th>
<th>Profile Option Value</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td>Manager1</td>
<td>UK pound sterling</td>
<td>Access to site and all products shows UK pounds sterling in effect</td>
</tr>
</tbody>
</table>
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.

---

**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.

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.
### Table: Hierarchy Level and Priority When Multiple Levels Set

<table>
<thead>
<tr>
<th>Hierarchy Level</th>
<th>Priority When Multiple Levels Set</th>
<th>Effect on Applications</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>Lowest</td>
<td>Affect all applications for a given implementation</td>
<td>Currency for the site is set to Euros.</td>
</tr>
<tr>
<td>Product</td>
<td>Supersedes Site</td>
<td>Affect all applications of a product family such as Financials</td>
<td>Currency for the Financials products set to UK pound sterling.</td>
</tr>
<tr>
<td>User</td>
<td>Highest, supersedes Product</td>
<td>Affect only the experience of the current user</td>
<td>Currency for the user of Financials applications set to US dollars.</td>
</tr>
</tbody>
</table>

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.

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.

For more information on the predefined profile options, see assets with the Profile Option type in the Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

**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.

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Role</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning, creating, and editing a new profile option</td>
<td>Applications developer</td>
<td>Since profile options are for permanent settings, do not use profile options to cache temporary session attributes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Add capacity for user preferences and system configuration. Customized profile options with values, value behaviors, validation, category values, and security. Define the levels at which the profile option is enabled.</td>
</tr>
<tr>
<td>Configure values in an existing profile option</td>
<td>Applications developer, application administrator, and implementation consultant</td>
<td>Manage the values for existing profile options.</td>
</tr>
<tr>
<td>Create and edit profile option categories</td>
<td>Applications developer, application administrator, and implementation consultant</td>
<td>Manage categories for organizing existing profile options.</td>
</tr>
</tbody>
</table>

**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.

**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.

```sql
SELECT DESCRIPTION Language, NLS_LANGUAGE
FROM FND_LANUGUAGE_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.

<table>
<thead>
<tr>
<th>Display Value</th>
<th>Hidden Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>American English</td>
<td>US</td>
</tr>
<tr>
<td>French</td>
<td>F</td>
</tr>
<tr>
<td>Spanish</td>
<td>E</td>
</tr>
</tbody>
</table>

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.

**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.

### 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.
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.

<table>
<thead>
<tr>
<th>Site</th>
<th>Product</th>
<th>User</th>
<th>Highest Available Level</th>
<th>Active Profile Option Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>InFusion</td>
<td>CRM Application Composer</td>
<td>Hima</td>
<td>User</td>
<td>Hindi</td>
</tr>
<tr>
<td>Acme</td>
<td>Payables</td>
<td>Application Administrator</td>
<td>User</td>
<td>American English</td>
</tr>
<tr>
<td>InFusion</td>
<td>Customer Center</td>
<td>Guillaume</td>
<td>Product</td>
<td>French</td>
</tr>
<tr>
<td>InFusion</td>
<td>Payables</td>
<td>Implementation Consultant</td>
<td>Site</td>
<td>American English</td>
</tr>
<tr>
<td>Acme</td>
<td>Payables</td>
<td>Implementation Consultant</td>
<td>none</td>
<td>no value</td>
</tr>
</tbody>
</table>

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...
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

A flexfield is an extensible set of placeholder fields in application pages that are associated with a business object. Each segment of the flexfield corresponds to a single application field, such as a segment of a key identifying a particular purchase, or the components of a student’s contact information, or the features of a product in inventory.

Using descriptive and extensible flexfields, you can extend business objects to capture data that wouldn’t otherwise be tracked by the application. If you need to add custom fields to a business object to meet your enterprise-specific requirements, configure the flexfield to have one segment for each needed field.

Using key flexfields, you can configure intelligent key codes comprised of meaningful parts according to your business practices. You configure the key flexfield to have one segment for each part that makes up your key code.

Flexfields let you meet enterprise requirements without changing the data model. Different data can be captured on the same database table. Each segment captures a single atomic value, has a name, and maps to a pre-reserved column in the application database.

You can use a flexfield to extend a business object if it has been registered for use on that object. Application developers create a flexfield and register it so that it is available for configuration. Administrators and implementation consultants set up or configure segments and other properties of the available flexfields. End users see flexfield segments as fields or 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.

The following aspects provide an overview of flexfields:

- Accessing flexfields and flexfield management tasks
- Types of flexfields
- Flexfield segments
- Value sets
- Structure and context
- Deployment
• Run time appearance

**Accessing Flexfields and Flexfield Management Tasks**

You can view flexfields on a page where they occur using the Highlight Flexfields feature. You can access flexfield management tasks directly from a highlighted flexfield, through product-specific flexfield management tasks, or by starting in the Setup and Maintenance Overview page which is available from the Navigator or the Administration menu.

For lists of flexfields, see assets with the Flexfield: Descriptive, Flexfield: Extensible, or Flexfield: Key type in Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

**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 lets you collect custom invoice details fields on an invoices page. You can implement these fields, which are descriptive flexfield segments, as context-sensitive so they appear only when needed on a row-by-row basis when specific contextual information is met. 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 custom fields needed beyond the predefined fields.

**Segments**

Each field that you configure using flexfields is a flexfield segment. 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 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 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 run time 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.

**Run time 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 flexfields on the run time page. Flexfields in highlight mode display an **Information** icon button to
access details about the flexfield, an **Edit** icon button to manage the flexfield, and an **Add Segment** icon button to add flexfield segments.

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.

**Configuring Flexfields: Overview**

Configuring a flexfield ranges from identifying the need for extending a business object with custom attributes to integrating the custom attributes into the deployment. In the case of key flexfields, configuring the flexfield involves identifying value set assignments and determining segment structures.

**Overall Process for Configuring Custom Attributes**

For descriptive and extensible flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan flexfield validation.
4. Define the attributes by configuring the flexfield segments.
   a. Use the Manage Extensible Flexfields or Manage Descriptive Flexfields tasks, or use the **Configure** icon button directly on the page where the flexfield is highlighted. For simple configurations, use the **Add Segment**, **Add Context Value**, and **Edit Segment** icon buttons directly on the page where the flexfield is highlighted.
   b. Optionally, validate the flexfield configuration.
   c. Optionally, deploy the flexfield to a sandbox for initial testing.
5. Deploy the flexfield to the mainline to display the custom attributes on the application pages and to make them available for integration with other tools such as Oracle Business Intelligence.
6. Perform the necessary steps to integrate the custom attributes into the technology stack.

A simple configuration is limited to such actions as adding a format-only field or adding a field with a basic list of values.

**Overall Process for Configuring Custom Keys**

Using key flexfields, you can configure intelligent key codes comprised of meaningful parts according to your business practices. You configure the key flexfield to have one segment for each part that makes up your key code.
For key flexfields, the overall configuration process involves the following:

1. Use the Highlight Flexfields feature from the Administration menu to find flexfields on pages associated with business objects.
2. Plan the flexfield configuration.
3. Plan the flexfield validation.
4. Define the value sets before configuring the key flexfield segments by going to the Manage Value Sets task.
5. Define the key flexfield structures and their segments, and define structure instances for each structure.
   a. Use the Manage Key Flexfields task or the Configure icon button directly on the page where the flexfield is highlighted.
   b. Optionally, validate the flexfield configuration.
   c. Optionally, deploy the flexfield to a sandbox for initial testing.
6. Deploy the flexfield to the mainline to display it on the application pages and to make it available for integration with other tools such as Oracle Business Intelligence.
7. Perform the necessary steps to integrate the flexfield into the technology stack.

**Flexfields at Run Time: Explained**

Many business objects in Oracle Fusion applications have an associated descriptive or extensible flexfield with which you can create custom attributes for the business object. Some business objects have an associated key flexfield for configuring flexible multiple part keys.

The following aspects are important in understanding flexfields at run time:

- Finding flexfields on a page
- Why no flexfields are on a page

**Finding Flexfields on a Page**

At run time, the custom attributes you define as extensible and descriptive flexfield segments appear in the application page just like any other attribute. Key flexfields typically appear in the application page as a field with a key flexfield icon, where the field’s value is actually a collection of segments. In some pages, one or more key flexfield segments may be displayed in the page like any other attribute. Thus, when viewing the page in standard mode, in many cases you may not be able to discern which fields are flexfield segments, or whether flexfields are available to configure on the page.

Use the Highlight Flexfields feature to render the page in a special mode that lets you view:

- Where, if any, flexfields are available on your page
• Which, if any, of the fields on your page are flexfield segments rather than out-of-the-box fields

To obtain information about the flexfields on a page, open the page and choose Highlight Flexfields from the Administration menu. Hover over the Information icon button next to the highlighted fields to display information about the flexfield. Choose Unhighlight Flexfields from the Administration menu when you no longer want to see the highlighted flexfields.

When you click the Configure Flexfield icon button for a highlighted flexfield, the applicable Manage Flexfields task is displayed for that flexfield. For simple configurations, you can click the Add Context Value icon button to add a context value, or click the Add Segment or Edit Segment icon buttons to add or edit a global segment or a context-sensitive segment that doesn’t require advanced configuration.

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**Note**

Not all flexfields are available for creating custom attributes. Consult the product-specific documentation in Oracle Fusion Applications Help to verify whether there are any restrictions on using the flexfield.

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**Why No Flexfields Are on a Page**

For a flexfield to be available in the page, it must be registered by developers. If a flexfield is available, you may configure segments. The segments appear on the page only after you have successfully deployed the flexfield. For information about registering flexfields, see the Oracle Fusion Applications Developer’s Guide. Some business objects haven’t been designed to support flexfields. For information about how to enable business objects with flexfield capability, see Getting Started with Flexfields in the Oracle Fusion Applications Developer’s Guide.

---

**Note**

The following Oracle Sales Cloud applications don’t support flexfields:

- Sales
- Marketing
- Customer Center
- Trading Community Architecture
- Order Capture

To add custom attributes to these applications, use Application Composer. For more information, see the “Editing an Object: Explained” section in Oracle Sales Cloud: Extending Sales.

---

**Customizing Flexfields Using Page Composer: Explained**

Using Page Composer, you can create customizations to flexfields that are specific to a page.
In Page Composer, to customize:

- Extensible flexfields, open the page in Source view, and look for a region that is bound to an EffContextsPageContainer task flow. This is the container for the extensible flexfield attributes and contexts. To view the flexfield code and identifying information, open the properties panel for the region. To customize any component within the region, select the desired tag and click Edit.

- Descriptive flexfields, open the page in Source view, and look for <descriptiveFlexfield> elements. Open the properties panel for the element to view the flexfield code and identifying information. Within the properties panel, you may customize properties for the global and context-sensitive segments or re-order the segments on the page.

### Accessing Flexfield Management Tasks: Procedures

You can configure and manage flexfields by highlighting them on an application page and using the available on-screen configuration tools. Alternatively, you can access product-specific flexfield tasks or global flexfield management tasks.

#### Accessing Flexfield Management Tasks through the Run time Page

You can identify flexfields on the run time application page where they are implemented.

1. Navigate to an application page.
2. Choose Highlight Flexfields from the Administration menu in the global area of Oracle Fusion Applications.
3. View the available flexfields highlighted on the page. If any of the fields on the page are custom fields configured as part of a flexfield, they also appear highlighted.
4. To edit a flexfield, use the:
   - **Configure Flexfield** icon button to access the flexfield management task pages for extensive configuration to the flexfield and its segments.
   - **Add Segment** icon button to access the subwindow for adding segments with limited configuration to descriptive flexfields.
   - **Edit Segment** icon button to access the subwindow for limited configuration changes to descriptive flexfield segments.

#### Accessing Flexfield Management Tasks through Setup and Maintenance

Manage flexfields using tasks you access by starting in the Setup and Maintenance Overview page which is available from the Navigator or the Administration menu.

To access tasks for configuring flexfields and value sets, you must be provisioned with roles that entitle you to access the Define Flexfields task list or tasks for managing product-specific flexfields. Contact your security administrator for
details. For information about product-specific flexfield tasks, such as Manage Purchasing Descriptive Flexfields, consult the product-specific documentation in Oracle Fusion Applications Help.

To access the flexfield management tasks and search for existing flexfields, perform the following steps:

1. Choose **Setup and Maintenance** from the **Administration** menu in the global area of Oracle Fusion Applications.
2. Search for Define Flexfields in the All Tasks tab.

**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.
  - Application Flexfield Value Set to find all tasks related to value sets.
- 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.
  - Value set across all Oracle Fusion Applications products, search for the Define Flexfields task list and access the Manage Value Sets task.

**Restriction**

If you are configuring key flexfields, search for and access the Manage Value Sets task to set up value sets before accessing the Manage Key Flexfields task.

3. Expand the task list to view the included tasks.
4. Click the **Task** icon button to open the manage flexfield pages.
5. Search for all or specific flexfields.
6. In the search results, select the flexfield.
7. Use the Edit action to open pages for viewing and configuring the flexfield. Access to managing value sets is available within the tasks for managing descriptive and extensible flexfields.

**Note**

Access to managing value sets is:

- Available within the tasks for managing descriptive and extensible flexfields.
- Not available within the tasks for managing key flexfields. Therefore, configure value sets prior to configuring your key flexfield.
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.

For example, an airline manufacturer might require very specific attributes for their orders that aren’t provided by the out-of-the-box implementation of an order. Because a flexfield exists for the order business object, you can use it to create and configure the desired attribute.

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 ADF business component (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.

The following aspects are important in understanding how flexfields and Oracle Fusion Applications architecture work together:

- Integration
- Deployment
- Import and Export
- Run time
- Patching

**Integration**

The attributes that you add by configuring flexfields are available throughout the Oracle Fusion Middleware technology stack, allowing the flexfields to be used in user interface pages, incorporated into the service-oriented architecture (SOA) infrastructure, and integrated with Oracle Business Intelligence. You identify flexfield segments for integration by the segment’s Application Programming Interface (API) name.

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 run time 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.

**Run time**

For a flexfield to reflect the latest flexfield definition at run time 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.

**Patching**

Flexfield configurations are preserved during patching and upgrading.

**Flexfields and Value Sets: Highlights**

Before you use flexfields to create custom attributes, you should be familiar with the Oracle Fusion application architecture that enables customization, customization layers, and the customization lifecycle.

In addition to the extensive information in the Oracle Fusion Applications Help about configuring flexfields that are already available for configuration, consider the resources below for adding flexfields to business components and alternatives to flexfields where flexfields cannot be enabled.

To assess the flexfields available in a deployment of Oracle Fusion Applications, see assets of type: flexfield in the Oracle Enterprise Repository at http://fusionappsoer.oracle.com.


**Restriction**

Don’t use Oracle JDeveloper to customize flexfields.

**Before Configuring Flexfields**

You can add custom attributes to a business object using a flexfield, if a flexfield has been registered for that object by developers.

- For information about registering flexfields to business objects, refer to the Oracle Fusion Applications Developer’s Guide.
  
  See: Getting Started with Flexfields

  - The user interface page for a business object that a developer extends to support a flexfield must be enabled to display the custom attributes defined by the flexfield.

  See: Adding Descriptive Flexfield UI Components to a Page

  See: Employing an Extensible Flexfield on a User Interface Page

- For Sales, Marketing, Customer Center, Trading Community Architecture, and Order Capture applications, use Application Composer to add custom attributes instead of using descriptive and extensible flexfields. For more information, refer to Oracle Sales Cloud: Extending Sales.

  See: Application Composer: Introduction

- For information about displaying translated values of a table-validated value set from the value column for the runtime session’s locale, refer to the Oracle Fusion Applications Developer’s Guide.
See: Using Multi-Language Support Features

Security

- For an understanding of data security when considering the consequences of applying data security to value sets, refer to the Oracle Fusion Applications Security Guide.

See: Data Security

Deploying Flexfields

- To examine the artifacts of a deployed flexfield configuration that you exported using the exportMetadata WLST command, refer to the Oracle Fusion Applications Extensibility Guide.

See: Exporting Customizations

- For information about synchronizing the updated XML schema definition (XSD) files in the metadata services (MDS) repositories for each service-oriented architecture (SOA) application, refer to the Oracle Fusion Applications Extensibility Guide.

See: Customizing SOA Composite Applications

- For information about incorporating a deployed flexfield into the technology stack, such as customizing the pages, integrating with Oracle Business Intelligence, or integrating into Web Services and service-oriented architecture SOA infrastructure, refer to the Oracle Fusion Applications Concepts Guide.

See: Oracle Fusion Middleware Components

- Oracle ADF services used by SOA composites expose the Web Services Description Language (WSDL) schemas where deployed flexfields are stored.

See: Oracle Fusion Middleware Developer’s Guide for Oracle SOA Suite

Oracle Business Intelligence

- For more information about importing and propagating your flexfield changes, refer to the Oracle Fusion Applications Extensibility Guide.

See: Customizing the Oracle BI Repository (RPD)

- For information about importing business intelligence-enabled flexfield changes into the Oracle Business Intelligence repository, refer to the Oracle Transactional Business Intelligence Administrator’s Guide.

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 let administrators configure and deploy flexfields. If you deploy a flexfield to a sandbox and decide to apply the configuration to the mainline, select the flexfield in the Manage Flexfields tasks of the Define Flexfields activity and deploy the flexfield in the mainline so that it is available to users.

Consider the following aspects of managing flexfields:

- Registering flexfields
- Planning flexfields
- Configuring flexfields
- Enabling a flexfields segment for business intelligence
- Deploying flexfields
- Optionally changing a flexfield segment's appearance in a user interface page
- Identifying flexfields on a run time page and troubleshooting
Registering Flexfields

Application development registers flexfields so they are available to administrators and implementation consultants for configuration.

As part of registering a flexfield, application development reserves columns of entity tables for use in flexfields so an enterprise can capture segments to meet their business needs. Many flexfields are registered 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

Before you begin planning flexfields, determine what type is appropriate to your needs, and which business objects are available for customizing flexfields.

All flexfields consist of segments which represent attributes of an entity. The values an end user inputs for an attribute are stored in a column of the entity table.

Carefully plan flexfields before configuring them. Before configuring new segments for your flexfields, be sure to plan their implementation carefully.

If you have determined that a business object supports flexfields, and those flexfields have been registered, you can begin planning how to configure the flexfield for your needs. Note the code name of the flexfield you intend to configure so you can find it easily in the Define Flexfield activity.

In some cases you can customize how the flexfield appears on the page.

See Oracle Fusion Applications Help for specific products to determine any restrictions on using product-specific flexfields.

Configuring Flexfields

Administrators or implementers configure flexfields so they meet the needs of the enterprise. Some flexfields require configuration to make an application operate correctly.

You can configure flexfields using the following methods:

- Go to the manage flexfield tasks in the Setup and Maintenance work area.
- Use the Highlight Flexfields command in the Administration menu while viewing a run time page.
- Use the Configure Flexfield icon button to manage a flexfield, such as change a segment’s sequence number, or configure a flexfield segment’s business intelligence label.
- Use the Add Segment icon button to add descriptive flexfield segments and context values, or extensible flexfield segments.

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 identifying information for each segment
• Specifying the display properties such as prompt, length and data type of each flexfield segment
• Specifying valid values for each segment, and the meaning of each value within the application

**Tip**
You can create value sets while creating descriptive and extensible flexfield segments. However, define value sets before configuring key flexfield segments that use them, because you assign existing value sets while configuring key flexfield segments.

When creating table-validated, independent, dependent, or subset value sets while creating descriptive and extensible flexfield segments, you can optionally specify to display the description of the selected value to the right of the segment at run time.

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order based on the segments’ sequence numbers. You cannot enter a number for one segment that is already in use for a different segment.

**Tip**
Consider numbering the segments in multiples, such as 4, 5, or 10, to make it easy to insert new attributes.

A flexfield column is assigned to a new segment automatically, but you can change the assignment before saving the segment. If you need to set a specific column assignment for a segment, create that segment first to ensure that the intended column isn’t automatically assigned to a different segment.

**Enabling a Flexfield Segment for Business Intelligence**

You can enable flexfield segments for business intelligence if the flexfield is registered in the database as an Oracle Business Intelligence-enabled flexfield. For more information on enabling segments for business intelligence, see points to consider when enabling key and descriptive flexfield segments for business intelligence.

For extensible flexfield segments, you can’t assign labels and use equalization to prevent duplication.

**Deploying Flexfields**

Once you have configured a flexfield, you must deploy it to make the latest definition available to runtime users.

In the Define Flexfields tasks, you can deploy a flexfield using either of the following commands:

• The Deploy Flexfield command to deploy a flexfield to mainline. This is for general use in a test or production environment.
• The Deploy to Sandbox command to deploy a flexfield to sandbox. This is to confirm that the flexfield is correctly configured before deploying it to the mainline.

When using the Add Segment and Edit Segment tools for descriptive flexfields in Highlight Flexfields mode, you can use the Save and Deploy command to save your changes and deploy the flexfield to mainline.

Once deployed, the deployment status indicates the state of the currently configured flexfield relative to the last deployed definition.

**Optionally Changing a Flexfield Segment Appearance**

The flexfield attributes that you define integrate with the user interface pages where users access the attributes' business object. Application development determines the UI pages where business objects appear and the display patterns used by default to render flexfield segments.

After a flexfield has been deployed to a mainline metadata services (MDS) repository so that it appears on application pages, you can customize it on a per-page basis using Page Composer. For example, you can hide a segment, change its prompt or other properties, or reorder the custom global attributes so that they are interspersed with the core attributes in the same parent layout.

You can only customize the appearance of descriptive and extensible flexfield segments in the UI page using Page Composer once the flexfield is deployed to the mainline.

If the Oracle Fusion applications are running in different locales, you can provide different translations for translatable text, such as prompts and descriptions. Enter translations by signing in using the locale that requires the translated text. You do this by selecting **Settings and Actions - Personalization - Set Preferences** in the global area and changing the text to the translated text for that locale.

**Identifying Flexfields on a Run time Page and Troubleshooting**

The **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area identifies the location of flexfields on the run time page by displaying an Information icon button for accessing details about each flexfield.

Even if a descriptive or extensible flexfield hasn't yet been deployed and no segments appear on the run time page in normal view, the flexfield appears in the Highlight Flexfield view for that page. In the case of descriptive flexfields, the segments as of the last deployment appear. **Highlight Flexfields** accesses the current flexfield metadata definition.

Use the highlighted flexfield’s **Edit** icon button to manage flexfields directly. Alternatively, note a highlighted flexfield’s name to search for it in the tasks for managing flexfields.

To examine a flexfield’s configuration, export the deployed artifacts using the exportMetadata WLST.

For more information on creating flexfields and adding them to a UI page, see the Oracle Fusion Applications Developer’s Guide.
For more information about customizing flexfield segment appearance with Oracle Composer, see guidance on customizing existing pages in the Oracle Fusion Applications Extensibility Guide.

**Flexfield Segment Properties: Explained**

Independent of the value set assigned to a segment, segments may have properties that affect how they are displayed and how they behave. The following aspects are important in understanding

- Display properties
- Properties related to segment values
- Properties related to search
- Range validation segments
- Rule validation of segment values
- Naming conventions

**Display Properties**

The following table summarizes display properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabled</td>
<td>Whether the segment can be used.</td>
</tr>
<tr>
<td>Sequence</td>
<td>The order the segment appears in relation to the other configured segments.</td>
</tr>
<tr>
<td>Prompt</td>
<td>The string to be used for the segment’s label in the user interface.</td>
</tr>
<tr>
<td>Display type</td>
<td>The type of field in which to display the segment.</td>
</tr>
<tr>
<td>Checked and unchecked values</td>
<td>If the display type is check box, the actual values to save. For example, Y and N or 0 and 1.</td>
</tr>
<tr>
<td>Display size</td>
<td>The character width of the field.</td>
</tr>
<tr>
<td>Display height</td>
<td>The height of the field as measured in visible number of lines when the display type is a text area.</td>
</tr>
<tr>
<td>Read only</td>
<td>Whether the field should display as read-only, not editable text.</td>
</tr>
<tr>
<td>Description help text</td>
<td>The field-level description help text to display for the field. Use description help text to display a field-level description that expands on or clarifies the prompt provided for the field.</td>
</tr>
<tr>
<td></td>
<td>If description help text is specified, a Help icon button is displayed next to the field in the run time application. The description help text is displayed when the user hovers over the Help icon button.</td>
</tr>
<tr>
<td>Instruction help text</td>
<td>The field-level instruction help text to display for the field. Use instruction help text to provide directions on using the field. If instruction help text is specified, it is displayed in an in-field help note window that appears when users give focus to or hover over the field.</td>
</tr>
</tbody>
</table>
Properties Related to Search

Extensible flexfield segments can be marked as selectively required in search using the indexed property. The indexed property requires end users to enter a value before conducting a search on the attribute represented by the indexed segment. A database administrator must create an index on the segment column representing the indexed attribute.

Range Validation of Segments

Range validation enables you to enforce an arithmetic inequality between two segments of a flexfield. For example, a product must be ordered before it can be shipped. Therefore, the order date must be on or before the ship date, 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 of the same data type.
- Both segments must be parts of the same structure in a key flexfield or parts of the same context in a descriptive flexfield or extensible flexfield.
- The low value segment must have a 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 that 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.

Rule Validation of Segment Values

Validation rules on descriptive and extensible flexfield segments determine how an attribute is validated. The value entered for an attribute on a business object may need to match a specified format or be restricted to a list of values. Use a value set to specify the validation rules.

Value set validation is required for global segments and context-sensitive segments, and optional for context segments. In the case of context segments, the application may validate an input value instead of the value set validating the input value against the context segment. However the application input values must match exactly the valid context segment values. If the context segment values are a superset or subset of the input values, you must assign a table-validated value set or independent value set to validate context values.

When you configure a descriptive flexfield segment, you can specify a constant to use for setting the initial value. The initial value can be an available parameter. For every planned segment, list the constant value or parameter, if any, to use for the initial value.
Naming Conventions

Enter a unique code, name, and description for the segment. These properties are for internal use and not displayed to end users. You can’t change the code after the segment is created.

The Application Programming Interface (API) name is a name for the segment that isn’t exposed to end users. The API name is used to identify the segment in various integration points including web services, rules, and business intelligence. Use alphanumeric characters only with a leading character. For example, enter a code consisting of the characters A-Z, a-z, 0-9 with a non-numeric leading character. The use of spaces, underscores, multi-byte characters, and leading numeric characters isn’t permitted. You can’t change the API name after the segment has been created.

Flexfields Segments: How They Are Rendered

Flexfield segments appear on pages as attributes of business objects.

Settings That Affect Flexfield Segment Display

When you configure flexfield segments, the value you enter for the segment’s display type determines how the segment appears on the run time page.

How Display Type Values Appear

The figure shows how display types appear at run time.

In the following figure, identify the display type by letter when referring to the table of descriptions for check box, drop-down list, list of values, pop-up list of values, and radio button group.

A. Check Box

☐ Display next notification after my response

B. Drop-down List

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

C. List of Values

My Airport Codes
- HNL Honolulu, HI
- SAN San Diego, CA
- SFO San Francisco, CA
- SJC San Jose, CA
- LAX Los Angeles, CA
- JFK New York, NY - All airports
- BOS Boston, MA
- PDX Portland, OR

D. Pop-up List of Values

Location

In the following figure, identify the display type by letter when referring to the table of descriptions for radio button group, text area, text box, and date/time.
The table describes each display type. The Example column refers to the figures above.

<table>
<thead>
<tr>
<th>Display Type</th>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Box</td>
<td>A</td>
<td>The field is displayed as a check box. If the end user selects the checkbox, the checked value is used. Otherwise, the unchecked value is used.</td>
</tr>
<tr>
<td>Drop-down List</td>
<td>B</td>
<td>The field displays a dropdown list of values from which the end user can select a value.</td>
</tr>
<tr>
<td>List of Values</td>
<td>C</td>
<td>The field displays a dropdown list of values from which the end user can select a value. The user can also click Search to find more values.</td>
</tr>
<tr>
<td>Pop-up List of Values</td>
<td>D</td>
<td>The field displays as a text field with a Search icon button. The end users can type a value in the text field or they can click the Search icon button to open a subwindow for searching.</td>
</tr>
<tr>
<td>Radio Button Group</td>
<td>E</td>
<td>The field is displayed as a set of radio buttons. The end user can select one button. Selecting a button deselects any previously selected button in the set.</td>
</tr>
</tbody>
</table>
Text Area | F | The field is displayed as a text area in which the end user can type multiple lines of text. The display width and height specify the visible width and number of lines in the text area, respectively.

Text Box | G | The field is displayed as a text field in which the end user can type a single line of text. The display width controls the width of the text box.

Date/Time | H | The field enables the end user to enter a date if the data type is Date, or a date and time if the data type is Date Time. The user can select the date from a calendar. If the data type is Date Time, the field also displays fields for specifying the hour, minutes, seconds, AM or PM, and time zone.

Hidden | | The field isn’t displayed.

Flexfields and Value Sets: How They Work Together

Value sets are specific to your enterprise. When gathering information using flexfields, your enterprise’s value sets validate the values that your users enter based on how you defined the value set.

You can assign a value set to any number of flexfield segments in the same or different flexfields. Value set usage information indicates which flexfields use the value set.

The following aspects are important in understanding how flexfields and value sets work together:

- Defining value sets
- Shared value sets
- Deployment

Defining Value Sets

As a key flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfields, you can define value sets when adding or editing a segment.

Caution

Be sure that changes to a shared value set are compatible with all flexfield segments that use the value set.

Shared Value Sets

When you change a value in a shared value set, the change affects the value set for all flexfields that use that value set. The advantage of a shared value set is
that a single change propagates to all usages. The drawback is that the change shared across usages may not be appropriate in every case.

**Value Set Values**

To configure custom attributes to be captured on the value set values screen in the Manage Value Sets task, configure the Value Set Values descriptive flexfield. The object’s code is FND_VS_VALUES_B. This flexfield expects the context code to correspond to the value set code. For each value set, you can define a context whose code is the value set code, and whose context-sensitive segments will be shown for the values of that value set. By default the context segment is hidden since it defaults to the value set code and is not expected to be changed.

You can also define global segments that will be shown for all value sets. However, this would be quite unusual since it would mean that you want to capture that attribute for all values for all value sets.

**Deployment**

When you deploy a flexfield, the value sets assigned to the segments of the flexfield provide 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 run time behavior corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it cannot subsequently be changed through the user interface. If the default value isn’t read only, users can modify it. However, if the segment value is a derived value, a user-modified segment value is overwritten when the derivation value changes.

<table>
<thead>
<tr>
<th>Default Type</th>
<th>Default value specified?</th>
<th>Derivation value specified?</th>
<th>Initial run time behavior</th>
<th>Run time behavior after parameter changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No</td>
<td>Yes</td>
<td>No initial segment value</td>
<td>The changed parameter derivation value updates segment value</td>
</tr>
<tr>
<td>Constant</td>
<td>Yes</td>
<td>No</td>
<td>Default segment value</td>
<td>N/A</td>
</tr>
<tr>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-----------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Constant</td>
<td>Yes</td>
<td>Yes</td>
<td>Default segment value</td>
<td>The changed parameter derivation value updates segment value</td>
</tr>
<tr>
<td>Parameter</td>
<td>Yes</td>
<td>No</td>
<td>The default segment value is the parameter’s default value</td>
<td>N/A</td>
</tr>
<tr>
<td>Parameter</td>
<td>Yes</td>
<td>Yes, and same as default value</td>
<td>The default segment value is the parameter’s default and derivation value</td>
<td>The changed parameter derivation value updates segment value</td>
</tr>
<tr>
<td>Parameter</td>
<td>Yes</td>
<td>Yes, and different from default value</td>
<td>The default segment value is the parameter’s default value</td>
<td>The changed parameter default value doesn’t update segment value. Only the changed derivation value updates the segment value.</td>
</tr>
</tbody>
</table>

**Flexfield Usages: Explained**

Usage affects various aspects of flexfields. The usage of the flexfield is set when the flexfield is registered and specifies the application and table with which the flexfield is associated.

Entity usage indicates the table containing the segments of a flexfield.

A flexfield can have multiple usages. The first table registered for a flexfield is the master usage. Segments are based on the master usage, and other usages of the same table for the same flexfield use the same segment setup, though the column names optionally may have a differentiating prefix.

**Extensible Flexfields**

You can configure different behavior for extensible flexfield contexts at the usage level. The usage of an extensible flexfield context determines in which scenarios or user interfaces the segments of a context appear to end users. For example, if a Supplier page displays an extensible flexfield’s supplier usage and a buyer page displays that same extensible flexfield’s buyer usage, a context that is associated to the supplier usage but not the buyer usage displays only on the supplier page and not the buyer page.

**Value Sets**

The usage of value sets specifies the flexfields having segments where the value set is assigned.
FAQs for Flexfield Management

Why did my flexfield changes not appear in the run time UI?

The ADF business components or artifacts of a flexfield, which are generated into an metadata services (MDS) repository when the flexfield is deployed, are cached within a user session. You must sign out and sign back in again to view flexfield definition changes reflected in the run time application user interface page.

A flexfield’s deployment status indicates whether the flexfield segments as currently defined in the metadata are available to end users. The flexfield segments seen by end users in the run time correspond to the flexfield definition that was last deployed successfully.

How can I enable flexfield segments for Oracle Social Network Cloud Service?

Descriptive flexfield segments can be enabled for integration with Oracle Social Network Cloud Service. When you manage Oracle Social Network Objects during setup and maintenance, search for the business object that includes descriptive flexfields, and select the business object attributes that are defined as flexfield segments.

Flexfield Deployment

Flexfield Deployment: Explained

Deployment generates or refreshes the Application Development Framework (ADF) business component objects that render the flexfield in a user interface. The deployment process adds the custom attributes to the Web Services Description Language (WSDL) schemas that are exposed by Oracle ADF services and that are used by SOA composites. Flexfields are deployed for the first time during the application provisioning process. After you configure or change a flexfield, you must deploy it to make the latest definition available to end users.

If a descriptive flexfield is enabled for business intelligence, the deployment process redeploys the flexfield’s business intelligence artifacts.

You can deploy a flexfield to a sandbox for testing or to the mainline for use in a test or production run time environment. You can deploy extensible flexfields as a background process.

After deployment, the custom attributes are available for incorporating into the SOA infrastructure, such as business process and business rule integration. For example, you can now write business rules that depend on the custom attributes. You must sign out and sign back in to Oracle Fusion Applications to see the changes you deployed in the run time.
The following aspects are important in understanding flexfield deployment:

- Deployment Status
- Initial Deployment Status
- Metadata Validations
- Metadata Synchronization
- Deployment as a Background Process

**Deployment Status**

Every flexfield has a deployment status.

A flexfield can have the following deployment statuses.

<table>
<thead>
<tr>
<th>Deployment Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edited</td>
<td>The flexfield metadata definition hasn’t been deployed yet. Updates of the metadata definition aren’t applied in the run time environment yet.</td>
</tr>
<tr>
<td>Patched</td>
<td>The flexfield metadata definition has been modified through a patch or through a data migration action, but the flexfield hasn’t yet been deployed so the updated definition isn’t reflected in the run time environment.</td>
</tr>
<tr>
<td>Deployed to Sandbox</td>
<td>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.</td>
</tr>
<tr>
<td>Deployed</td>
<td>The current metadata for the flexfield is deployed in ADF artifacts and available to end users. There haven’t been any changes to the flexfield since it was last deployed in the mainline.</td>
</tr>
<tr>
<td>Error</td>
<td>The deployment attempt in the mainline failed.</td>
</tr>
</tbody>
</table>

**Note**

Whenever a value set definition changes, the deployment status of a flexfield that uses that value set changes to edited. If the change results from a patch, the deployment status of the flexfield changes to patched.

**Initial Deployment Status of Flexfields**

The Oracle Fusion Applications installation loads flexfield metadata into the database. This initial load sets the flexfield status to Edited. The application provisioning process during installation deploys the 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 run time requires setup, such as defining key flexfields.

**Metadata Validation**

Use the Validate Metadata command to view possible metadata errors before attempting to deploy the flexfield. Metadata validation is the initial phase of all flexfield deployment commands. By successfully validating metadata before running the deployment commands, you can avoid failures in the metadata validation phase of a deployment attempt. The deployment process aborts if it encounters an error during the metadata validation phase. Metadata validation results don't affect the deployment status of a flexfield.

**Metadata Synchronization**

When an extensible or descriptive flexfield is deployed, the deployment process regenerates the XML schema definition (XSD), which makes the custom attributes available to web services and the SOA infrastructure.

After deploying a flexfield configuration, you must synchronize the updated XML schema definition (XSD) files in the MDS repositories for each SOA application.

---

**Note**

To synchronize the updated XSD files in the MDS repositories in Oracle Cloud implementations, log a service request using My Oracle Support at [http://support.com/](http://support.com/)

**Deployment as a Background Process**

You can deploy extensible flexfields or incremental changes made to extensible flexfields as a background process. You must use this action to deploy extensible flexfields that have more than 30 categories. You can also use this action if you want to deploy several extensible flexfields, or if you want to continue working in your session without having to wait for a deployment to complete.

**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.

The following aspects are important in understanding how flexfield deployment status is calculated:

- Settings that affect flexfield deployment status
- How deployment status is calculated
Settings That Affect Flexfield Deployment Status

If you have made a change to a flexfield and expect a changed deployment status, be sure you have saved your changes. No settings affect flexfield deployment status.

How Deployment Status Is Calculated

If the flexfield definition has been edited through the Define Flexfields activity task flows, the status is Edited. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. Any change, including if a value set used in a flexfield changes, changes the deployment status to Edited. If a flexfield has never been deployed, its status is Edited.

Note

When an application is provisioned, the provisioning framework attempts to deploy all flexfields in that application.

If you deploy the flexfield to a sandbox successfully, the status is Deployed to Sandbox. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a sandbox MDS repository. Whether the sandbox is active or not doesn't affect the deployment status. If the flexfield was deployed to a sandbox and hasn't been edited or redeployed to the mainline since then, the status remains Deployed to Sandbox independent of whether the sandbox is active, or who is viewing the status.

If you deploy the flexfield successfully to the mainline, 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 that the current flexfield definition isn’t deployed, the status is Error. The deployment error message gives details about the error. The latest flexfield metadata definition in the Oracle Fusion application likely diverges from the latest successfully deployed flexfield definition.

If the flexfield definition has been modified by a patch, the status is Patched. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. If the flexfield definition was Deployed before the patch and then a patch was applied, the status changes to Patched. If the flexfield definition was Edited before the patch and then a patch was applied, the status will remain at Edited to reflect that there are still changes (outside of the patch) that aren’t yet in effect.

When a deployment attempt fails, you can access the Deployment Error Message for details.

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.
Warning

Don’t customize flexfield segment display properties using Page Composer in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.

Mainline Metadata Services Repository Data

The Oracle Fusion Applications database stores the single source of truth about a flexfield. When the flexfield is deployed, the ADF business component objects that implement the flexfield in the runtime user interface are generated in the mainline MDS repository from this source.

Deploying a Flexfield to a Sandbox: Points to Consider

Deploying a flexfield to a sandbox creates a flexfield-enabled sandbox. Each flexfield-enabled sandbox contains only one flexfield.

You can test the runtime behavior of a flexfield in the flexfield-enabled sandbox. If changes are needed, you return to the Define Flexfield tasks to change the flexfield definition.

When you deploy a flexfield to sandbox, the process reads the metadata about the segments from the database, generates flexfield Application Development Framework (ADF) business component artifacts based on that definition, and stores in the sandbox only the generated artifacts derived from the definition.

When you deploy a flexfield sandbox, the process generates the name of the flexfield sandbox, and that flexfield sandbox is set as your current active sandbox. When you next sign in to the application, you can see the updated flexfield configurations. The Oracle Fusion Applications global area displays your current session sandbox.

Note

Unlike a standalone sandbox created using the Manage Sandboxes tool, the sandbox deployed for a flexfield contains only the single flexfield. You can manage flexfield sandboxes, such as setting an existing flexfield sandbox as active or deleting it, using the Manage Sandboxes tool.

When you deploy a flexfield to the mainline after having deployed it to the sandbox, the sandbox-enabled flexfield is automatically deleted.

Sandbox MDS Repository Data

The sandbox data lets you test the flexfield in isolation without first deploying it in the mainline where it could be accessed by users.

Warning

Don’t customize flexfield segment display properties using Page Composer in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.
Managing a Flexfield-Enabled Sandbox

When you deploy a flexfield as a sandbox, that flexfield-enabled sandbox automatically gets activated in your user session. When you sign back in to see the changes, the sandbox is active in your session.

You can only deploy a flexfield to a sandbox using the Define Flexfields task flow pages.

You also can use the Manage Sandboxes feature in the Administration menu of the Setup and Maintenance work area to activate and access a flexfield-enabled sandbox.

**Note**

Whether you use the Define Flexfields or Manage Sandboxes task flows to access a flexfield-enabled sandbox, you must sign out and sign back in before you can see the changes you deployed in the run time.

You cannot publish the flexfield from the sandbox to the mainline. 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.

<table>
<thead>
<tr>
<th>WebLogic Server Tool Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>deployFlexForApp</td>
<td>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.</td>
</tr>
<tr>
<td>deployFlex</td>
<td>Deploy a single flexfield regardless of deployment status</td>
</tr>
<tr>
<td>deployPatchedFlex</td>
<td>Deploys flexfield changes that have been delivered using a flexfield Seed Data Framework (SDF) patch. Deploys flexfields that have a Patched deployment status.</td>
</tr>
<tr>
<td>deleteFlexPatchingLabels</td>
<td>Displays MDS label of flexfield changes for viewing and deleting patching labels.</td>
</tr>
<tr>
<td>validateFlexDeploymentStatus</td>
<td>Displays list containing flexfields that aren’t deployed or failed deployment.</td>
</tr>
</tbody>
</table>
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 run time 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
- Using the `validateFlexDeploymentStatus` 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) if it isn’t 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 doesn’t deploy flexfields that have a status of Deployed unless the force parameter is set to `'true'` (the default setting is `'false'`).

For more information 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.

```bash
deployFlexForApp('product_application_shortname', ['enterprise_id'], ['force'])
```

In a multi-tenant environment, replace `enterprise_id` with the Enterprise ID to which the flexfield is mapped. Otherwise, replace with `'None'` or don’t provide a second argument.

To deploy all flexfields regardless of their deployment status, set force to `'true'` (the default setting is `'false'`). 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:

```bash
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. The values must be wrapped in single-quotes.

```bash
deployFlex('product_application_shortname', 'flex_code', 'flex_type')
```
deployFlex('flex_code', 'flex_type')

Optionally, execute the following command if the flexfield is an extensible flexfield, and you want to deploy all the flexfield's configurations.

**Note**

By default, extensible flexfields are partially deployed. That is, only the pages, contexts, or categories that had recent changes, are deployed.

```
deployFlex('flex_code', 'flex_type', ['force_Complete_EFF_Deployment'])
```

where, forceCompleteEFFDeployment=None

### Using the deployPatchedFlex Command

Use the `deployPatchedFlex` command for situations where the patching framework doesn't 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 isn't 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.

```
deployPatchedFlex()
```

Execute the following command to deploy all flexfields that have either a READY status or an ERROR status.

```
deployPatchedFlex(mode='RETRY')
```

### Using the deleteFlexPatchingLabels Command

Whenever you deploy flexfield changes to MDS using the `deployPatchedFlex()` WLST command, an MDS label is created in the format `FlexPatchingWatermarkdate+time`. Use the `deleteFlexPatchingLabels` command to inquire about and delete these labels.

From the WLST tool, execute the `deleteFlexPatchingLabels()` command with no arguments to delete the flexfield patching labels.

To output a list of flexfield patching labels, execute the command with the `infoOnly` argument, as follows:

```
deleteFlexPatchingLabels(infoOnly='true')
```

### Using the validateFlexDeploymentStatus Command

The `validateFlexDeploymentStatus()` WLST command checks the deployment status of all flexfields in an Oracle Fusion Applications deployment.

```
validateFlexDeploymentStatus()
```
Use this command to verify that all flexfields in the current instance of provisioned Java EE applications are deployed.

**Exiting the WLST and Checking the Results**

To exit the tool, execute the following command.

```java
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 group of valid values that you assign to a flexfield segment to control the values that are stored for business object attributes.

An end user enters a value for an attribute of a business object while using the application. The flexfield validates the value against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

---

**Caution**

Be sure that changes to a shared value set are compatible with all flexfields segments using the value set.

---

The following aspects are important in understanding value sets:

- Managing value sets
- Validation
- Security
- Precision and scale
- Usage and deployment

**Managing Value Sets**

To access the Manage Value Sets page, use the Manage Value Sets task, or use the Manage Descriptive Flexfields and Manage Extensible Flexfields tasks for configuring a segment, including its value set. To access the Manage Values page, select the value set from the Manage Value Sets page, and click **Manage Values**. Alternatively, click **Manage Values** from the Edit Value Set page.
Validation

The following types of validation are available for value sets:

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set doesn't present a list of valid values to users.

Note

Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

Security

Value set security only works in conjunction with usage within flexfield segments.

You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. The value set is the resource secured by data security policies. If a value set is secured, every usage of it in any flexfield is secured. It isn't possible to disable security for individual usages of the same value set.

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 doesn't determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key
flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

**Precision and Scale**

If the data type of a value set is Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

**Usage and Deployment**

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.

For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

**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.
Tip
As a flexfield guideline, define value sets before configuring the flexfield, because you can assign value sets to each segment as you configure a flexfield. With descriptive and extensible flexfield segments, you can create value sets when adding or editing a segment on the runtime page where the flexfield appears.

The following aspects are important in defining value sets:

- Value sets for context segments
- Format-only validation
- Interdependent value sets
- Table validation
- Range
- Security
- Testing and maintenance

Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets.

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context's column length. If you use a table value set, the value set cannot reference flexfield segments in the value set's WHERE clause other than the flexfield segment to which the value set is assigned.

Format Only Validation

The format only validation type enables 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, users can enter the value 456 (for a value set with maximum length of three or more), but can't enter the value ABC. A format only value set doesn't otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how many digits should follow the radix separator.

Interdependent Value Sets

Use an independent value set to validate input against a list that isn't stored in an application table, and not dependent on a subset of another independent value set.
You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. Use a dependent value set to limit the list of values for a given segment based on the value that the 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 don’t need to choose a value for another segment first to have access to the subset value set.

Independent, dependent, and subset value sets require a customized list of valid values. Use the Manage Values page to create and manage a value set’s valid values and the order in which they appear.

Tip

You can customize the Manage Value Sets page to capture additional attributes for each valid value by adding context-sensitive segments in a new context for FND_VS_VALUES_B descriptive field.

Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table, such as a table of vendor names. Specify the table column that contains the valid value. You can optionally specify the description and ID columns, a WHERE clause to limit the values to use for your set, and an ORDER BY clause.

If you specify an ID column, then the flexfield saves the ID value, instead of the value from the value column, in the associated flexfield segment. If the underlying table supports translations, you can enable the display of translated text by basing the value set’s value column on a translated attribute of the underlying table. You should also define an ID column that is based on an attribute that isn’t language-dependent so that the value’s invariant ID (an ID that doesn’t change) is saved in the transaction table. This allows the run time to display the corresponding translated text from the value column for the run time session’s locale.

Table validation lets you enable a segment to depend upon multiple prior segments in the same context structure. You cannot reference other flexfield segments in the table-validated value set’s WHERE clause. That is, the WHERE clause cannot reference SEGMENT.segment_code or VALUESET.value_set_code.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it
doesn’t have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

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.

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.

To enable security on a value set, specify a database resource, typically the code value for the value set. Using the Manage Database Security Policies task, specify conditions, such as filters or SQL predicates, and policies that associate roles with conditions. You can use a filter for simple conditions. For more complex conditions, use a SQL predicate.

Value set data security policies and conditions differ from data security conditions and policies for business objects in the following ways:

- You can grant only read access to end users. You cannot specify any other action.
- When defining a condition that is based on a SQL predicate, use VALUE, VALUE_NUMBER, VALUE_DATE, VALUE_TIMESTAMP, or VALUE_ID to reference the value from a dependent, independent, or subset value set. For table value sets, use a table alias to define the table, such as &TABLE_ALIAS category=70.

When you enable security on table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set shouldn’t assume anything about the bind variables; it must assume that 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.

Testing and Maintenance

There is no need to define or maintain values for a table-validated value set, as the values are managed as part of the referenced table or independent value set, respectively.
You cannot manage value sets in a sandbox.

When you change an existing value set, the deployment status for all affected flexfields changes to Edited. You must redeploy all flexfields that use that value set to make the flexfields reflect the changes. In the UI pages for managing value sets, the value set's usages show which flexfields are affected by the value set changes.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select Translatable. This doesn't require you to provide translated values now, but you cannot change this option if you decide to provide them later.

Planning Value Sets: Points to Consider

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

The following aspects are important in planning value sets:

- List of values
- Plain text input
- Value ranges
- Value format specification
- Security

List of Values

You can use one of the following types of lists to specify the valid values for a segment:

- Table column
- Custom list
- Subset of custom list
- Dependent custom list

If the valid values exist in a table column, use a table value set to specify the list of values. To limit the valid values to a subset of the values in the table, use a SQL WHERE clause. Table value sets also provide some advanced features, such as enabling validation depending on other segments in the same structure.

Use an independent value set to specify a custom set of valid values. For example, you can use an independent value set of Mon, Tue, Wed, and so forth to validate the day of the week. You can also specify a subset of an existing independent value set as the valid values for a segment. For example, if you
have an independent value set for the days of the week, then a weekend subset can be composed of entries for Saturday and Sunday.

Use a dependent value set when the available values in the list and the meaning of a given value depend on which independent value was selected for a previously selected segment value. For example, the valid holidays depend on which country you are in. A dependent value set is a collection of value subsets, with one subset for each value in a corresponding independent value set.

For lists of values type value sets, you can additionally limit the valid values that an end user can select or enter by specifying format, minimum value, and maximum value. For list of values type value sets, you can optionally implement value set data security. If the Oracle Fusion applications are running in different locales, you might need to provide different translations for the values and descriptions.

**Plain Text Input**

Use a format-only value set when you want to allow end users to enter any value, as long as that value conforms to formatting rules. For example, if you specify a maximum length of 3 and numeric-only, then end users can enter 456, but not 4567 or 45A. You can also specify the minimum and maximum values, whether to right-justify, and whether to zero-fill. With a format-only value set, no other types of validation are applied.

**Value Ranges**

You can use either a format-only, independent, or dependent value set to specify a range of values. For example, you might create a format-only value set with Number as the format type where the end user can enter only the values between 0 and 100. Or, you might create a format-only value set with Date as the format type where the end user can enter only dates for a specific year, such as a range of 01-JAN-93 to 31-DEC-93. Because the minimum and maximum values enforce these limits, you need not define a value set that contains each of these individual numbers or dates.

**Value Format**

Flexfield segments commonly require some kind of format specification, regardless of validation type. Before creating a value set, consider how you will specify the required format.

The following table shows options for validation type and value data type.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value data type</td>
<td>Character, Number, Date, Date Time.</td>
</tr>
<tr>
<td>Value subtype</td>
<td>Text, Translated text, Numeric digits only, Time (20:08), Time (20:08:08).</td>
</tr>
<tr>
<td></td>
<td>An additional data type specification for the Character data type for the</td>
</tr>
<tr>
<td></td>
<td>Dependent, Independent, and Format validation types.</td>
</tr>
<tr>
<td><strong>Maximum length</strong></td>
<td>Maximum number of characters or digits for Character data type.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Precision</strong></td>
<td>Maximum number of digits the user can enter.</td>
</tr>
<tr>
<td><strong>Scale</strong></td>
<td>Maximum number of digits that can follow the decimal point.</td>
</tr>
<tr>
<td><strong>Uppercase only</strong></td>
<td>Lowercase characters automatically changed to uppercase.</td>
</tr>
<tr>
<td><strong>Zero fill</strong></td>
<td>Automatic right-justification and zero-filling of entered numbers (affects values that include only the digits 0-9).</td>
</tr>
</tbody>
</table>

**Caution**

You cannot change the text value data type to a translated text value subtype after creating a value set. If there is any chance you may need to translate displayed values into other languages, choose Translated text. Selecting the Translated text subtype doesn’t require you to provide translated values.

**Value Sets for Context Segments**

You can use only table and independent value sets to validate context values. The data type must be character and the maximum length of the values being stored must not be larger than the context’s column length. If you use a table value set, the value set cannot reference flexfield segments in the value set’s WHERE clause other than the flexfield segment to which the value set is assigned.

**Security**

When enabling security on a value set, the data security resource name is an existing value set or one that you want to create. The name typically matches the code value for the value set.

**Restriction**

You cannot edit the data security resource name after you save your changes.

**Table-Validated Value Sets and Bind Variables: Points to Consider**

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

The following bind variables refer to flexfield elements:

- `:SEGMENT.<segment_code>`
- `:CONTEXT.<context_code>;SEGMENT.<segment_code>`
- `:VALUESET.<value_set_code>`
• \{FLEXFIELD.<internal_code>\}

• \{PARAMETER.<parameter_code>\}

**Segment Code**

\{SEGMENT.<segment_code>\}

This bind variable refers to the ID or value of a segment where `<segment_code>` identifies the segment. Where referring to the ID, the value set is ID-validated. Where referring to the value, the value set isn't ID-validated. The data type of the bind value is the same as the data type of the segment’s column.

For both descriptive and extensible flexfields, the segment must be in the same context as the source segment. The source segment contains the WHERE clause. For descriptive flexfields, if the segment is global, then the source segment must be global.

The segment must have a sequence number that is less than the sequence number of the target segment with this bind variable. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment. For example, the values to select from a CITIES table might depend upon the selected country. If SEGMENT1 contains the country value, then the WHERE clause for the CITIES table might be `<country_code> = \{SEGMENT.SEGMENT1\}`.

**Context Code**

\{CONTEXT.<context_code>;SEGMENT.<segment_code>\}

This bind variable, which is valid only for extensible flexfields, refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of a segment that is in a different context than the target segment (the segment with the WHERE clause).

- The `<context_code>` identifies the context and must be in the same category or in an ancestor category. It cannot be a multiple-row context.
- The `<segment_code>` identifies the segment. The data type of the bind value is the same as the data type of the segment’s column.

**Tip**

The target segment should appear in the UI after the source segment to ensure the source segment has a value. If the target segment’s context is a single-row context, the source and target segments must be on separate pages and the target page must follow the source page.

This bind variable is useful when the set of valid values depends on the value of a segment in another context. For example, the values to select from a CERTIFICATION table for a segment in the Compliance and Certification context might depend on the value of the country segment in the Manufacturing context.
Value Set Code

:{VALUESET.<value_set_code>}

This bind variable refers to the ID (if the value set is ID-validated) or value (if not ID-validated) of the segment that is assigned to the value set that is identified by the value_set_code. The data type of the bind value is the same as the data type of the segment's column.

The segment must have a sequence number that is less than the sequence number of the segment with this bind variable. If more than one segment is assigned to the value set, the closest prior matching segment will be used to resolve the bind expression. A matching segment must exist in the current flexfield context.

This bind variable is useful when the set of valid values depends on the value in another segment and that segment code can vary, such as when the value set is used for more than one context or flexfield. For example, the values to select from a CITIES table might depend upon the selected country. If the value set for the segment that contains the country value is COUNTRIES, then the WHERE clause for the CITIES table might be <county_code> = :{VALUESET.COUNTRIES}.

Flexfield Internal Code

:{FLEXFIELD.<internal_code>}

This bind variable refers to an internal code of the flexfield in which the value set is used, or to a validation date. The internal_code must be one of the following:

- APPLICATION_ID - the application ID of the flexfield in which this value set is used. The data type of APPLICATION_ID and its resulting bind value is NUMBER.

- DESCRIPTIVE_FLEXFIELD_CODE - the identifying code of the flexfield in which this value set is used. The data type of DESCRIPTIVE_FLEXFIELD_CODE and its resulting bind value is VARCHAR2. Note that you use this string for both descriptive and extensible flexfields.

- CONTEXT_CODE - the context code of the flexfield context in which this value set is used. The data type of CONTEXT_CODE and its resulting bind value is VARCHAR2.

- SEGMENT_CODE - the identifying code of the flexfield segment in which this value set is used. The data type of SEGMENT_CODE and its resulting bind value is VARCHAR2.

- VALIDATION_DATE - the current database date. The data type of VALIDATION_DATE and its resulting bind value is DATE.

Flexfield Parameters

:{PARAMETER.<parameter_code>}

This bind variable refers to the value of a flexfield parameter where parameter_code identifies the parameter. The data type of the resulting bind value is the same as the parameter's data type.
Note

You cannot assign a table value set to a context segment if the WHERE clause uses VALUESET.value_set_code or SEGMENT.segment_code bind variables.

Table-Validated Value Set: Worked Example

In an application user interface, you want to display a list of values that allow customers to enter satisfaction scores. The value column name is 1, 2, 3, 4, 5 and the value column description is Extremely Satisfied, Satisfied, and so on. Users can pick the appropriate value or description which stores the corresponding name so the name value can be used in a calculation expression.

In this case, you can use the FND_LOOKUPS table as the basis for a table-validated value set. The lookup meaning corresponds to the Value Column Name and the lookup description corresponds to the Description Column Name. The properties of the value set are as follows:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM clause</td>
<td>FND_LOOKUPS</td>
</tr>
<tr>
<td>WHERE clause</td>
<td>lookup_type = 'CN_XX_CUST_SATISFACT_SCORE'</td>
</tr>
<tr>
<td>ID column</td>
<td>lookup_code</td>
</tr>
<tr>
<td>Value column</td>
<td>meaning</td>
</tr>
<tr>
<td>Description column</td>
<td>description</td>
</tr>
<tr>
<td>Enable Flag column</td>
<td>enabled_flag</td>
</tr>
<tr>
<td>Start Date column</td>
<td>start_date_active</td>
</tr>
<tr>
<td>End Date column</td>
<td>end_date_active</td>
</tr>
<tr>
<td>Order by</td>
<td>display_sequence</td>
</tr>
</tbody>
</table>

After completing this task, you should have created your customer satisfaction value set for the Incentive Compensation page of your implementation project.

Creating a Value Set Based on a Lookup

1. From the Setup and Maintenance work area, find the Manage Value Sets task and click the Go to Task icon button.
2. On the Manage Value Sets page, click the Create icon button.
3. On the Create Value Set page, enter the following values:
   a. In the Value Set Code field, enter CN_XX_CUSTOMER_SATISFACTION_SCORES
   b. In the Description field, enter Customer satisfaction score.
   c. In the Module field, select Search....
   d. In the Search and Select: Module subwindow, enter Incent in the User Module Name field
   e. Select Incentive Compensation.
   f. Click OK.
4. On the Create Value Set page, enter the following values:
   a. In the Validation Type field, select Table.
   b. In the Value Data Type field, select Character.
   c. In the Definition section FROM Clause field, enter FND_LOOKUPS.
   d. In the Value Column Name field, enter DESCRIPTION.
   e. In the Description Column Name field, enter MEANING.
   f. In the ID Column Name field, enter LOOKUP_CODE.
   g. In the Enabled Flag Column Name field, enter 'Y'.
   h. In the Start Date Column Name field, enter START_DATE_ACTIVE.
   i. In the End Date Column Name field, enter END_DATE_ACTIVE.
   j. In the WHERE Clause field, enter LOOKUP_TYPE = 'CN_XX_CUST_SATISFACT_SCORE'.

5. Click Save and Close.

6. In the Manage Value Sets page, click Done.

Adding Attributes to the Manage Value Sets Page: Procedures

For independent, dependent, and subset value sets, you can add attributes to a value set. The attributes appear in the Manage Value Sets UI for capturing additional information about each valid value, such as its purpose.

Typically, these attributes are used to capture internal information. To display attributes on an application page, you must programmatically modify the application to access them.

1. Find the FND_VS_VALUES_B flexfield using the Manage Descriptive Flexfields task.
2. Open FND_VS_VALUES_B for editing.
3. Click Manage Contexts.
4. Create a new context and use the value set code for the context code.
5. Add the new attributes as context-sensitive segments.
6. Deploy FND_VS_VALUES_B to the run time.
7. Sign out and sign back in.
8. Open the Manage Value Sets page to view the new attributes.

Translating Flexfield and Value Set Configurations: Explained

When you first configure a flexfield or segment, the translatable text that you enter, such as prompts and descriptions, is stored as the text for all installed locales. You may then provide a translation for a particular locale. If you don't provide a translation for a given locale, then the value that was first entered is used for that locale.

To translate the text for a particular locale, log in with that locale or specify the locale by selecting Settings and Actions - Personalization - Set Preferences.
in the global area. Then, update the translatable text in the flexfield using the Manage Descriptive Flexfields task, Manage Key Flexfields task, or Manage Extensible Flexfields task. Your modifications change the translated values only for the current session’s locale.

After you complete the translations, deploy the flexfield.

You can define translations for a dependent value set or an independent value set, if it is of type Character with a subtype of Translated text. You define the translations by setting the current session to the locale for which you want to define the translation and using the Manage Value Sets task to enter the translated values and descriptions for that locale.

For a table value set for which the underlying table supports multiple languages and for which the value set's value column is based on a translated attribute of the underlying table, you can define translated values using the maintenance task for the underlying table. For more information on using multilanguage support features, see the Oracle Fusion Applications Developer's Guide.

FAQs for Manage Value Sets

What happens if a value set is security enabled?

Value set security is a feature that enables you to secure access to value set values based on the end user's role in the system.

As an example, suppose you have a value set of US state names. When this value set is used to validate a flexfield segment, and users can select a value for the segment, you can use value set security to restrict them to selecting only a certain state or subset of states based on their assigned roles in the system.

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

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

When you define or edit a flexfield segment, you specify a default value from the values provided by the value set assigned to that segment.

You can set the default value for a descriptive flexfield segment to be a parameter, which means the entity object attribute to which the chosen parameter is mapped provides the initial default value for the segment.

You can set the default value to be a constant, if appropriate to the data type of the value set assigned to the segment.

In addition to an initial default value, you can set a derivation value for updating the attribute's value every time the parameter value changes. The parameter you choose identifies the entity object source attribute. Any changes in the value of the source attribute during run time are reflected in the value of the segment.
If the display type of the segment is a check box, you can set whether the default value of the segment is checked or unchecked.

**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 aren’t 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 whether or not to configure and expose segments for the descriptive flexfield defined and registered in your database. For lists of descriptive flexfields, see assets with the Flexfield: Descriptive type in Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

A descriptive flexfield provides a set amount of segments for an entity. You make the segments of a descriptive flexfield 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.

<table>
<thead>
<tr>
<th>Segment Type</th>
<th>Run Time Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global segment</td>
<td>Always available</td>
</tr>
<tr>
<td>Context segment</td>
<td>Determines which context-sensitive segments are displayed</td>
</tr>
<tr>
<td>Context-sensitive segment</td>
<td>Displayed depending on the value of the context segment</td>
</tr>
</tbody>
</table>

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
A 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 configure the flexfield by determining the following:

- Which attributes to add using the available segments
- The context values
- 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.

**Planning Descriptive Flexfields: Points to Consider**

Once you have identified a flexfield to configure, plan the configuration in advance. Compile a list of the UI pages and other artifacts in your deployment that are affected by the configuration. Verify that you are provisioned with the roles needed to view and configure the flexfield. View the flexfield using the Highlight Flexfields command in the Administration menu while viewing the run time page where the flexfield appears. Plan how you will deploy the
flexfield for test and production users. Review the tools and tasks available for managing flexfields, such as the Define Flexfields task list, Manage Sandboxes, and Highlight Flexfields for adding and editing flexfield segments.

Planning a descriptive flexfield can involve the following tasks:

1. Identify existing parameters.
2. Identify existing context values and whether the context value is derived.
3. Identify custom attributes and plan the descriptive flexfield segments, segment properties, and structure.
5. Plan initial values.
6. Plan attribute mapping to Oracle Business Intelligence objects.

Identify Existing Descriptive Flexfield Parameters

Some descriptive flexfields provide parameters that can be used to specify the initial value of a descriptive flexfield segment. The parameter is external reference data, such as a column value or a session variable. For example, if a flexfield has a user email parameter, you can configure the initial value for a customer email attribute to be derived from that parameter.

Review the list of available parameters in the Derivation Value field in the Create Segment page for a descriptive flexfield. If you decide to use one of the parameters to set an initial value, select that parameter from the Derivation Value drop-down list when you add the descriptive flexfield segment.

Evaluate Whether the Context Value Is Derived

The context value for a descriptive flexfield might have been preconfigured to be derived from an external reference. For example, if the context is Marriage Status, then the value might be derived from an attribute in the employee business object. When the context value is derived, you might need to take the derived values and their source into consideration in your plan.

To determine whether the context value is derived, access the Edit Descriptive Flexfield task to view the list of configured context values for the flexfield. The Derivation Value field in the Context Segment region displays a list of available parameters.

If context values have been preconfigured, see Oracle Fusion Applications Help for product-specific information about the use of those values.

Plan the Segments, Segment Properties, and Structure

Identify the custom attributes you need for a business object to determine the segments of the descriptive flexfield. Determine the segment properties such as the prompt, display type, or initial value.

The structure of the descriptive flexfield is determined by its global, context, and context-sensitive segments. Plan a global segment that captures an attribute for
every instance of the business object. Plan a context for segments that depend on a condition of situation applying to a particular instance of the business object. Plan context-sensitive segments to capture attributes that are relevant in the context.

There is only one context segment available for descriptive flexfields. If you have more than one group of custom attributes where you could use the context segment, you will have to pick one group over the others, based on your company's needs and priorities, and add the other custom attributes as global segments.

**Plan Validation Rules**

Define each segment's validation rules and check if value sets exist for those rules or you must create new ones. If you must create a value set, you can create it either before configuring the flexfield or while creating or editing a segment.

When determining a segment's validation rules, consider the following questions:

- What is the data type - character, date, date and time, or number?
- Does the segment require any validation beyond data type and maximum length?
- Should a character type value be restricted to digits, or are alphabetic characters allowed?
- Should alphabetic characters automatically be changed to uppercase?
- Should numeric values be zero-filled?
- How many digits can follow the radix separator of a numeric value? In base ten numerical systems the radix separator is decimal point.
- Does the value need to fall within a range?
- Should the value be selected from a list of valid values? If so, consider the following questions:
  - Can you use an existing application table from which to obtain the list of valid values, or do you need to create a custom list?
  - If you are using an existing table, do you need to limit the list of values using a WHERE clause?
  - Does the list of valid values depend on the value in another flexfield segment?
  - Is the list of valid values a subset of another flexfield segment's list of values?

**Plan Initial Values**

For every segment, list the constant value or SQL statement, if any, to use for the initial value of the custom attribute.
Plan How Segments Map to Oracle Business Intelligence Objects

If a descriptive flexfield has been enabled for Oracle Business Intelligence, you can make it available for use in Oracle Business Intelligence applications. You can use segment labels to map segments to logical objects. Plan to map segments to logical objects before deploying the flexfield as a way to streamline the import into Oracle Business Intelligence.

Use the Manage Segment Labels page to view preconfigured segment labels. If a segment label doesn't exist for the logical object, then decide on a code, name, and description in preparation for adding that label. Choose a code, name, and description that will help end users select the correct label.

The mapping equalizes similar context-sensitive attributes that are from different contexts but are mapped to a single logical object. For information about objects in the logical model, see the "Working with Logical Tables, Joins, and Columns" chapter in the Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition).

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.

In general, configuring descriptive flexfields involves:

1. Creating segment labels for business intelligence enabled flexfields.
2. Configuring global segments by providing identity information, the initial default value, and the display properties.
3. Configuring the context segment by specifying the prompt, whether the context segment should be displayed, and whether a value is required.
4. Configuring contexts by specifying a context code, description, and name for each context value, and adding its context-sensitive segments, each of which is configured to include identifying information, the column assignment, the initial default value, and the display properties.

The following aspects are important in understanding descriptive flexfield management:

- Segments
- Adding Segments to a Highlighted Flexfield
- Usages
- Parameters
- Delimiters
• Initial Values
• Business Intelligence

Segments

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order. You cannot enter a number for one segment that is already in use for a different segment.

Value sets are optional for context segments. 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. The value set must be independent or table-validated. If table-validated, the WHERE clause must not use the VALUESET.value_set_code or SEGMENT.segment_code bind variables. The value set must be of data type Character with the maximum length of values being stored no larger than the context’s column length.

If you don't specify a value set for a context segment, the valid values for that context segment are derived from the context codes. The definition of each context segment specifies the set of context-sensitive segments that can be presented when that context code is selected by the end user.

For reasons of data integrity, you cannot delete an existing context. Instead, you can disable the associated context value in its own value set by setting its end date to a date in the past.

You can configure the individual global segments and context-sensitive segments in a descriptive flexfield. These segment types are differentiated by their usage, but they are configured on application pages that use most of the same properties.

Adding Segments to a Highlighted Flexfield

When you highlight flexfields on a run time page and use an Add Segment icon button to create a segment, the segment code, name, description, table column, and sequence number are set automatically. If you use an Add Segment icon button to configure descriptive flexfield segments, you cannot use an existing value set. Value sets are created automatically when you add the segments. You can enter the valid values, their descriptions, and the default value or specify the formatting constraints for the value set, such as minimum and maximum values.

Depending on display type, the value set you create with the Add Segment icon button is either an independent value set or a format-only value set. The table shows which type of value set is created depending on the segment display component you select.

<table>
<thead>
<tr>
<th>Display Component</th>
<th>Value Set Created with Add Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check box</td>
<td>Independent</td>
</tr>
<tr>
<td>Drop-down list</td>
<td>Independent</td>
</tr>
<tr>
<td>List of Values</td>
<td>Independent</td>
</tr>
<tr>
<td>Radio Button Group</td>
<td>Independent</td>
</tr>
</tbody>
</table>
Tip
After you add a context value, refresh the page to see the new value.

Usages
Descriptive flexfield usages allow for the same definition to be applied to multiple entities or application tables, such as a USER table and a USER_HISTORY table. Descriptive flexfield tables define the placeholder entity where the flexfield segment values are stored once you have configured the descriptive flexfield. When you configure a flexfield, the configuration applies to all its usages.

Parameters
Some descriptive flexfields provide parameters, which are attributes of the same or related entity objects. Parameters are public arguments to a descriptive flexfield. Parameters provide outside values in descriptive flexfield validation. You use parameters to set the initial value or derivation value of an attribute from external reference data, such as a column value or a session variable, rather than from user input. Parameters can be referenced by the logic that derives the default segment value, and by table-validated value set WHERE clauses.

Delimiters
A segment delimiter or separator visually separates segment values when the flexfield is displayed as a string of concatenated segments.

Initial Values
The SQL statement defining an initial value must be a valid statement that returns only one row and a value of the correct type.

You can use two types of SQL statements:

- SQL statement with no binding. For example, select MIN(SALARY) from EMPLOYEES.
- SQL statement with bind variables. You can use the following bind variables in the WHERE clause of the SQL statement.
  - : (SEGMENT.<segment_code>): Identifies a segment in the same context.
  - : (CONTEXT.<context_code>; SEGMENT.<segment_code>): Identifies a segment in a different context. The context must be in the same
category or in an ancestor category, and it cannot be a multiple-row context.

- `{VALUESET.<value_set_code>`: Identifies the closest prior segment in the same context that is assigned to the specified value set.

- `{FLEXFIELD.<internal_code>`: Identifies a flexfield.

For more information about using bind variables, see the help for value sets.

**Business Intelligence**

Selecting a global, context, or context-sensitive segment’s BI Enabled checkbox specifies that the segment is available for use in Oracle Business Intelligence.

When the flexfield is imported into Oracle Business Intelligence, the label you selected from the BI Label dropdown list equalizes the segment with segments in other contexts, and maps the segment to the logical object represented by the label.

**Enabling Descriptive Flexfield Segments for Business Intelligence: Points to Consider**

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

The following aspects are important in understanding BI-enabled flexfield segments:

- Flattening business components to use BI-enabled segments in Oracle BI
- Equalizing segments to prevent duplication and complexity in the flattened component
- Mapping attributes of flattened business components to logical objects in Oracle BI
- Managing the labels that map segments to logical objects in Oracle BI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process to import the flexfield changes into the Oracle Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For example, a user can generate a report that includes attributes added by the descriptive flexfield. For additional information about logical objects and import, refer to the Oracle Transactional Business Intelligence Administrator’s Guide.

**Flattening**

When you deploy a business intelligence-enabled descriptive flexfield, the deployment process generates an additional set of flattened Application Development Framework (ADF) business components in addition to the usual ADF business components and ADF faces run time artifacts that are
generated during deployment. The flattened business components include attributes for business intelligence-enabled segments only. Flattening means each custom column in each context shows up as an attribute in an Oracle Business Intelligence folder.

Flattened components include one attribute for the BI-enabled context-segment, and one attribute for each business intelligence-enabled global segment. For BI-enabled context-sensitive segments, consider the following:

- If you assigned a label to the segment, the flattened components include an additional single attribute representing segments with that label.
- If you didn't assign a label, the flattened components include a discrete attribute for each BI-enabled context-sensitive segment in each context.

Mapping to Logical Objects in Business Intelligence

You can simplify reporting by representing similar segments as a single logical object in Business Intelligence.

If you assign a label to any set of context-sensitive segments that serve the same purpose in different contexts, you can consolidate or equalize the segments into a single attribute. This prevents duplication and the extra workload and complexity that result from the flattening process. For example, a United States context might have a Passport segment and a Canada context might have Visa segment. If you assign the NationalID segment label to both the Passport and Visa segments, they are equalized into the same NationalID attribute in the flattened business component.

Non-labeled context-sensitive segments aren't equalized across context values, so the flattened components include a separate attribute for each context-sensitive segment for each context value.

Note

It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

Assign a label to a global segment, context segment, or context-sensitive segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

Note

Assigning a label to a context-sensitive segment serves to equalize the attribute across contexts, as well as map the equalized attribute to business intelligence.

Managing Labels

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the steps for importing the
flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across contexts.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label doesn’t exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, context-sensitive segments without labels cannot be equalized across context values. The flattened components include a separate attribute for each non-labeled context-sensitive segment in each context.

Importing to Oracle Business Intelligence Repository

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly flattened business components in business intelligence and then propagate the flexfield object changes. When you import the metadata into the Oracle Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user.

Note

To import flexfield changes into the Oracle Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process. For additional information about import, refer to the Oracle Transactional Business Intelligence Administrator’s Guide.

Tip

When you import a flexfield into the Oracle Business Intelligence repository, you see both <name> and <name>_c attributes for each segment, along with some other optional attributes. The <name> attribute contains the value. The <name>_c attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

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 aren’t restricted by the number of columns 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.

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 doesn’t differ by context value.

An extensible flexfield describes an application entity, with the run time 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.

For lists of extensible flexfields, see assets with the Flexfield: Extensible type in Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

The following aspects are important in understanding key flexfields:
• Usages
• Categories
• Pages
• Security

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.

Usages include security information for applying no security to user access or enforcing view and edit privileges. Some product-specific extensible flexfields have special usage fields beyond those for security.

Categories

You can configure multiple extensible flexfield contexts and group the contexts into categories. All extensible flexfields have at least one category. For some extensible flexfields, you can configure a hierarchy of categories. A child category in the hierarchy can inherit contexts from its parent category.
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 let you 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.

**Security**

When you configure a flexfield, you set the privileges for a context at the usage level by selecting actions for the view and edit privileges of a context usage.

When an end user performs a search, the user interface displays only the attribute values of the contexts for which the user has view privileges. The user is able to perform a search using all attributes for all contexts, regardless of view privileges.

If end users access a context through a web service, an exception is thrown if they perform an action for which they don't have privileges.

All extensible flexfields have a base data security resource. Some data security resources for extensible flexfields are preconfigured with actions that you can use to specify access privileges. If no action is preconfigured, a security administrator can create actions and policies to support access control on the extensible flexfield attributes.

Some extensible flexfields have a translatable option; these flexfields also have a translation data security resource.

**Planning Extensible Flexfields: Points to Consider**

Once you have identified a flexfield to configure, plan the configuration in advance. Compile a list of the UI pages and other artifacts in your deployment that are affected by the configuration. Verify that you are provisioned with the roles needed to view and configure the flexfield. View the flexfield using the Highlight Flexfields command in the Administration menu while viewing the runtime page where the flexfield appears. Plan how you will deploy the flexfield for test and production users. Review the tools and tasks available for managing flexfields, such as the Define Flexfields task list, Manage Sandboxes, and Highlight Flexfields for adding and editing flexfield segments.
Planning an extensible flexfield can involve the following tasks:

1. Identify a hierarchical structure of categories.
2. Identify existing context values.
3. Identify custom attributes and plan the extensible flexfield segments, segment properties, and structure.
5. Plan initial values.
6. Plan security.
7. Plan attribute mapping to Oracle Business Intelligence objects.

**Category Hierarchy Structure**

Existing category hierarchy structures provide the framework for planning what segments to add to an extensible flexfield as custom attributes of an entity.

Some Oracle Fusion applications provide user interfaces to create and manage an extensible flexfield’s category hierarchy.

**Contexts and Existing Context Values**

If related custom attributes can be grouped together, plan adding the attributes as a context of segments, and plan the order in which the attributes should appear.

Some extensible flexfields have preconfigured context values. Region headers displayed in the user interface page or pages that contain the flexfield segments identify existing contexts. Using the Manage Extensible Flexfields task, find and open the flexfield for editing to view the list of configured context values.

See product-specific information for guidance in using preconfigured context values.

**Plan the Segments and Segment Properties**

List all the custom attributes that you want to add as extensible flexfield segments.

For each segment, define properties, including the indexed property.

**Plan Validation Rules**

Define each segment’s validation rules and check if value sets exist for those rules or you must create new ones. If you must create a value set, you can create it either before you configure the flexfield or at the same time that you create or edit a segment.

When determining a segment’s validation rules, consider the following questions:
• What is the data type - character, date, date and time, or number?

• Does the segment require any validation beyond data type and maximum length?

• Should a character type value be restricted to digits, or are alphabetic characters allowed?

• Should alphabetic characters automatically be changed to uppercase?

• Should numeric values be zero-filled?

• How many digits can follow the radix separator of a numeric value? In base ten numerical systems the radix separator is decimal point.

• Does the value need to fall within a range?

• Should the value be selected from a list of valid values? If so, consider the following questions:
  • Can you use an existing application table from which to obtain the list of valid values, or do you need to create a custom list?
  • If you are using an existing table, do you need to limit the list of values using a WHERE clause?
  • Does the list of valid values depend on the value in another flexfield segment?
  • Is the list of valid values a subset of another flexfield segment's list of values?

Plan Initial Values

For every segment, list the constant value or SQL statement, if any, to use for the initial value of the custom attribute.

Plan Security

Determine what privileges to set for view and edit access to context attributes, such as providing all end users with view access but only managers with edit access.

If your security restrictions apply to several contexts, you can create generic actions. At a minimum, create the generic actions for the base data security resource. If the flexfield has a translatable option and you plan to use translatable contexts, then also create the generic actions for the translation data security resource. For example, if the Item flexfield supports the translatable option and has a data security resource ITEM_EFF_VL in addition to the base data security resource ITEM_EFF_B, then create actions for both data security resources, such as EDIT_NONTRANS_ATTRS for ITEM_EFF_B and EDIT_TRANS_ATTRS for ITEM_EFF_VL.

If your security restrictions are more fine-grained, such as needing to secure each context with a different privilege, then you can create more fine-grained actions.
Plan Which Segments Map to Oracle Business Intelligence Objects

If an extensible flexfield has been enabled for Oracle Business Intelligence, you can make the attributes available for use in Oracle Business Intelligence applications.

Managing Extensible Flexfields: Points to Consider

Configuring extensible flexfields involves managing the available flexfields registered with your application database.

The following sequence describes how to configure extensible flexfields:

1. Configuring contexts by creating each context segment and the context-sensitive segments for each context segment, and providing the following for each segments:
   a. Identifying information
   b. Column assignment
   c. Initial default value
   d. Display properties
2. Configuring context usages and usage security by selecting actions to which users should have access:
   • View
   • Edit
   • None, if no special privileges should be enforced.
3. Configuring categories and category details.
4. Associating contexts with a category.
5. Creating logical pages for a category.

The following aspects are important in understanding extensible flexfield management:

• Contexts
• Categories
• Initial values
• Indexed segments
• Pages
• Security
• Deployment

Contexts

Each context is displayed to end users as a region containing its context-sensitive segments. You can specify instruction help text to display instructions that
explain how to use the region and its attributes to end users. Instruction help text is displayed at the top of the context region. 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 segment for chapter and a segment for number of pages. Multiple chapters can then be associated with each book in the BOOK table.

For contexts that store multiple rows, you can uniquely identify each row by having the values in each row form a unique key.

If flexfield has a category hierarchy, then you can leverage the hierarchy to reuse contexts for similar entities, such as similar items in a product catalog.

Set the context to translatable so that 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.

Set the context security to give an end user view or edit access to a context. The context’s task flow and region appear in the user interface only for users with view access. With edit access, an end user can edit the context’s attribute values. With no action specified for a usage, no special privileges are enforced through the context’s configuration.

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. Extensible flexfields with more than 30 categories must be deployed as a background process.

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. Consider category hierarchies to be 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 various 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 logical pages, and determine the sequence in which the pages appear. This serves to connect the contexts so they will always be presented together and in a particular order 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.

**Initial Values**

The SQL statement defining an initial value must be a valid statement that returns only one row and a value of the correct type.

You can use two types of SQL statements:

- SQL statement with no binding. For example, select MIN(SALARY) from EMPLOYEES.

- SQL statement with bind variables. You can use the following bind variables in the WHERE clause of the SQL statement.
  
  - `{SEGMENT.<segment_code>`: Identifies a segment in the same context.
  
  - `{CONTEXT.<context_code>;SEGMENT.<segment_code>`: Identifies a segment in a different context. The context must be in the same category or in an ancestor category, and it cannot be a multiple-row context.
  
  - `{VALUESET.<value_set_code>`: Identifies the closest prior segment in the same context that is assigned to the specified value set.
  
  - `{FLEXFIELD.<internal_code>`: Identifies a flexfield.

For more information about using bind variables, see the help for value sets.

**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. Commonly, a database administrator (DBA) adds columns to the database index.

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 criteria. No search is performed if an end user enters an attribute that isn’t indexed as a search criterion.

Pages

Define logical pages to group contexts together in the user interface. For a given category, you may create one or more logical pages. You may add one or more of the category’s associated contexts to each of the category’s logical pages.

You can specify:

- The sequence of the contexts within each page.
- The sequence in which the logical pages appear.
- Instruction help text to display instructions that explain how to use the page to end users. Instruction help text is displayed at the top of the logical page, preceding all of its context regions.

Security

An extensible flexfield’s base data security resource typically has a name with an _B suffix. The translation data security resource is a view of a translation table that typically has a name with an _VL suffix.

If a flexfield supports the translatable option and has a translation data security resource, make sure that you create the action for the appropriate data security resource.

- If you create a context-specific action for a nontranslatable context, add it to the base data security resource.
- If you create a context-specific action for a translatable context, add it to the translation data security resource.

Deployment

You can only deploy extensible flexfields using the Manage Extensible Flexfields task. You can deploy extensible flexfields offline as a background process and continue working in the session without having to wait for the deployment to complete. You can add one after another extensible flexfield to your deployment queue when you deploy as a background process. The flexfields are deployed, one at a time, in the order that you deploy them to the queue. You must deploy extensible flexfields with more than 30 categories as a background process.

You can remove an extensible flexfield from the deployment queue with the Cancel Background Deployment command.
When an extensible flexfield is deployed in a background process, its offline status indicates that the flexfield is in a background deployment process. A flexfield’s offline status is cleared and its deployment status updated when the background deployment process has completed.

Note

The **Offline Status** column refreshes when you perform a new search in the Manage Extensible Flexfields task.

Managing Extensible Flexfield Categories: Points to Consider

Categories are a way of extending the number of context-sensitive segments for a flexfield beyond the columns reserved for flexfield segments.

An Items extensible flexfield has a category for each item and each category can have one or more contexts. The laptop item belongs to the Computers category. Since extensible flexfields are mapped to separate extension tables, not just to columns as with descriptive flexfields, the thirty reserved columns on the extensible flexfield table let you define up to thirty context-sensitive segments for each context.

If you add a Dimensions context to the Computers category, thirty segments are available. But if you need to add more than thirty attributes, create another context and associate it to the same category. You could now add an Electronics Attributes context to the same Computers category in which you create another thirty segments.

You can continue creating more contexts and adding them to the Computers category. In this way your laptop computer item can be extended with as many attributes as you need, because it is mapped to a category and you can keep adding contexts to that category.

A descriptive flexfield on an items table with thirty columns reserved for segments can only have a single context. Once you configure the columns for that one context, you cannot create any more segments.

Predefined and Preconfigured Categories

How you structure the flexfield configuration depends on how categories are defined for the flexfield. If the extensible flexfield is preconfigured with one category, associate all your contexts and pages with that category. If a product-specific extensible flexfield is preconfigured with several categories, associate your contexts and pages with those categories. If the extensible flexfields provide user interfaces for configuring multiple categories, associate a context with more than one category using inheritance.

Some products provide and activity or task for creating and maintaining categories for an extensible flexfield. See product-specific information to determine if you can create categories for the flexfield.

You can view a flexfield’s category hierarchies by using either the Highlight Flexfields feature or the Manage Extensible Flexfields task to find and open the flexfield for editing.
Disabling Categories

While configuring an extensible flexfield, you can disable a category. The Enabled column in the Category table of the Edit Extensible Flexfield page, indicates which categories are enabled.

Warning

When you deploy an extensible flexfield that has a disabled category, that category and its descendant categories aren’t deployed. Contexts and their segments are deployed only if they belong to at least one enabled category.

Contexts

Group similar custom attributes into contexts. The group is displayed together in a region. The region’s header is the context value.

If a category hierarchy exists for the flexfield, then you can leverage the hierarchy to reuse contexts for similar entities, such as similar items in a product catalog.

The figure shows the Item Extended Attributes flexfield, which uses the category hierarchy feature to reuse contexts. The flexfield’s Electronics and Computers category contains contexts for compliance and certification, voltage, and materials and substances. The TV and Video subcategory and the Computer Products subcategory inherit the Electronics and Computer contexts in addition to having their own contexts. The Materials and Substances context belongs to both the Electronics and Computer Products category and the Tools, Auto, and Industrial Products category.

The table shows an example of category hierarchy for an extensible flexfield.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics and Computers</td>
<td>PROD_ELECTRONICS</td>
<td>Electronics and Computers</td>
</tr>
<tr>
<td>• TV and Video</td>
<td>PROD_TV_VIDEO</td>
<td>Television and Video</td>
</tr>
<tr>
<td>• Computers</td>
<td>PROD_COMPUTERS</td>
<td>Computers</td>
</tr>
</tbody>
</table>
To store voltage information for all electronic and computer items, associate a Voltage context with the Electronics and Computers category. Both the TV and Video subcategory and the Computers subcategory then inherit the Voltage context from the parent Electronics and Computers category.

**Configuring an Item Extended Attributes Flexfield: Example**

The Item Extended Attributes flexfield provides segments for extending the Item business object. In the Manage Extensible Flexfields task, you configure your product business object to include a Technical Specifications logical page in the user interface for the Electronics and Computers category of items.

In this example, your configuration of this flexfield groups custom attributes into the following contexts:

- Materials and Substances
- Compliance and Certification
- Voltage

**Scenario**

The following list shows an example plan for custom computer attributes for the Item Extended Attributes flexfield. In this example, the Electronics Information page is inherited from the parent Electronics and Computers category.

- Page: Electronics Information
  - Context: Compliance and Certification, single row
    - ISO 14001 (International Organization for Standardization for an Environmental Management System)
    - ENERGY STAR (energy efficiency guidelines)
    - ROHS (Restriction of the use of certain hazardous substances in electrical and electronic equipment)
  - Context: Voltage, single row
    - Minimum voltage
    - Maximum voltage
    - Current type
  - Context: Materials and Substances, multiple rows
    - Material
    - Contain recyclate
- Percent unit mass
- Page: Computer Information
  - Context: Processor Specifications, single row
    - Manufacturer
    - CPU type
    - Processor interface
    - Processor class
    - Processor speed
    - Cores

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which extensible flexfield is available for configuring a hierarchy of categories?</td>
<td>Item Extended Attributes flexfield</td>
</tr>
</tbody>
</table>

**Collecting Technical Specifications**

Your product inventory pages for electronics and computers require a technical specifications page. Your product inventory pages for furniture require a furniture specifications page and an assembly instructions page. Items in both the electronics and computer category, and in the furniture category, share attributes for specifying materials and substances.

The figure shows a Technical Specifications logical page in the user interface for the Electronics and Computers category, with attributes in the context of Recovery and Recycling, Compliance and Certification, Operating Conditions, and Materials and Substances. The Materials and Substances context is configured for multiple rows so your users can select all the materials and substances required to make a single product, displayed as attribute values in a table.
Analysis

You use logical pages to arrange how the contexts appear in the user interface. Use a context to store all the materials and substances required to make a single product. You can configure a context to store multiple rows per entity. The multiple rows are displayed in a table, as for the Materials and Substances context.

The Technical Specifications logical page contains the attributes for the four contexts.

- Recovery and Recycling
- Compliance and Certification
- Operating Conditions
- Materials and Substances

In the figure, the Furniture category is configured to include a Furniture Specifications logical page and an Assembly Instructions logical page. The two categories (Electronics & Computers and Furniture) share the Materials & Substances context.

Configure Security for the Item Flexfield Configuration

The following table shows an example of data security policies for the Item flexfield.

<table>
<thead>
<tr>
<th>Data Security Resource</th>
<th>Policy</th>
<th>Role</th>
<th>Actions</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM_EFF_B</td>
<td>A</td>
<td>VOLTAGE_SPEC</td>
<td>edit_nontrans_voltag</td>
<td>All values</td>
</tr>
<tr>
<td>ITEM_EFF_VL</td>
<td>B</td>
<td>COMPLIANCE_SPE</td>
<td>edit_trans_complian</td>
<td>All values</td>
</tr>
<tr>
<td>ITEM_EFF_VL</td>
<td>C</td>
<td>COMPUTER_SPE</td>
<td>edit_trans_attr</td>
<td>ComputerCategoryFilter</td>
</tr>
<tr>
<td>ITEM_EFF_VL</td>
<td>D</td>
<td>TELEVISION_SPE</td>
<td>edit_trans_attr</td>
<td>TVCategoryFilter</td>
</tr>
</tbody>
</table>

The following table shows the privileges for three of the flexfield’s contexts.
In this example, anyone can view the contexts' attributes, but the edit privileges are restricted as follows:

- Voltage: Editable only by voltage specialists.
- Compliance and Certification: Editable only by compliance specialists.
- Materials and Substances: Only computer specialists can edit these attributes for items in the computer category. Only television specialists can edit these attributes for items in the TV category.

In this example, the Materials and Substances context is secured by a generic action with a condition applied to restrict access by category. Voltage and Compliance and Certification are secured by actions specific to each context.

**FAQs for Manage Extensible Flexfields**

**Why did the extensible flexfield context not appear at run time?**

If a deployed extensible flexfield context doesn’t appear in the user interface, verify that the context is associated with one of the category's pages defined for the extensible flexfield.

**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 sees 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 aren’t 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.

For lists of key flexfields, see assets with the Flexfield: Key type in Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsoer.oracle.com).

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**Note**

For information about specific key flexfields, see the Oracle Fusion Applications Help for the product where the associated business component is implemented.

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**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. Flexfield metadata is stored in flexfield metadata tables.

Based on the flexfield metadata, actual part numbers are captured at run time 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 combinations 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 have ten parts, define ten combinations. A valid combination is simply an existing or new combination that can currently be used because it isn’t out of date or disabled, and doesn’t 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 lets you 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. Maintain individual combinations, such as part numbers in the combinations page.

**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.

<table>
<thead>
<tr>
<th>Level Of Dynamic Combination Creation</th>
<th>Controlled By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexfield</td>
<td>Application development</td>
</tr>
</tbody>
</table>

Common Applications Configuration: Define Applications Core Configuration 17-111
<table>
<thead>
<tr>
<th>Each usage or reference to the key flexfield</th>
<th>Application development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure instance</td>
<td>Administrators and implementation consultants</td>
</tr>
<tr>
<td>Other</td>
<td>Administrators and implementation consultants</td>
</tr>
</tbody>
</table>

If your key flexfield or certain usages or references of the key flexfield don’t 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 doesn’t 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 isn’t the underlying table for the foreign key page.

**Planning Key Flexfields: Points to Consider**

Your first step in planning your key flexfields is to determine which key flexfields your application requires.

Your plan should include:

- The purpose of the key flexfield
- The number and length of its available segment columns
- Whether your key flexfield allows more than one structure
- Whether more than one structure must be defined
- The number, order and length of your segments for each structure

Consider the following aspects in planning flexfields:

- Before you begin
- Access to flexfield-related tasks
- Restrictions
- Validation rules for flexfield segments

**Before You Begin**

Once you have identified a flexfield to configure, plan the configuration in advance. Compile a list of the UI pages and other artifacts in your deployment that are affected by the configuration. Verify that you are provisioned with the roles needed to view and configure the flexfield. View the flexfield using the Highlight Flexfields command in the Administration menu while viewing the run time page where the flexfield appears. Plan how you will deploy the flexfield for test and production users.
Review the tools and tasks available for managing flexfields, such as the Define Flexfields task list and Manage Sandboxes.

If you plan to use value sets, create them before configuring the key flexfield. You cannot create value sets for key flexfields at the time that you add and configure key flexfield segments.

**Access to Flexfield-Related Tasks**

To access tasks for configuring flexfields and value sets, you must be provisioned with roles that entitle you to access the tasks in the Define Flexfields task list or tasks for managing product-specific flexfields. Contact your security administrator for details. For information about product-specific flexfield tasks, such as Manage Fixed Assets Key Flexfields, consult the product-specific documentation in Oracle Fusion Applications Help.

**Restrictions**

If you plan to use value sets, create them before configuring the flexfield.

Plan your key flexfield configuration to scale to your enterprise needs. For example, if you expect to disable old cost centers and enable new ones frequently, plan a larger maximum size for your cost center value set so that you can have more available values. One thousand available values for a 3-character value set provides more room for changes than 100 available values for a 2-character value set.

Note the code name of the flexfield you intend to configure so you can find it easily in the Define Flexfield task list or tasks for managing product-specific key flexfields.

In some cases you can customize how the flexfield appears on the page.

See Oracle Fusion Applications Help for specific products to determine any restrictions on using product-specific key flexfields.

**Reporting**

If you want to report on your data by certain criteria or sub-entities, such as account number or project or region, consider making that sub-entity a distinct segment, rather than combining it with another sub-entity, so that you can categorize and report on smaller discrete units of information.

**Managing Key Flexfields: Points to Consider**

Consider the plans for a key flexfield, security, and resulting run time pages when configuring key flexfields.

**Planning**

Plan structures carefully and allow for future needs.

---

**Caution**
Don’t change the number, order, and maximum length of segments once you have acquired flexfield data.

**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.

**Tip**

Choose the delimiter value of your key flexfield carefully so that it doesn’t conflict with the flexfield data. For example, if your data frequently contains periods, such as in monetary or numeric values, don’t use a period as your segment separator. Any character you expect to appear frequently in your segment values or descriptions isn’t 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 combinations 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.

**Run time 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 the 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 pages 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 lets you manipulate 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 enables the key flexfield to behave more like a descriptive flexfield.

A code combination maintenance page or combinations page presents the combinations table. This enables directly creating and maintaining code combinations. The combinations table contains all key flexfield segment columns and a unique ID column.

A typical application has only one combinations page. An application might not have a combinations page if it doesn’t 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 that you can reuse a single key flexfield in multiple combinations of the same segments or a subset of those 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.

---

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 doesn’t display disabled segments in run time.

**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

At the structure level, differences among structure instances include whether dynamic combination creation is allowed.

At the structure instance level, differences among segment instances 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 can 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. Commonly, a database administrator (DBA) adds columns to the database index.

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 search criteria. No search is performed if an end user doesn’t enter at least one query required attribute as search criteria.

Tip

Index the Structure Instance Number column on your combinations table to improve run time 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 lets end users enter values at run time that produce new code combinations for the flexfield. If **Dynamic Combination Creation Allowed** isn't 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 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.

**Cross Validation Rules: Explained**

You can control the creation of new key flexfield code combinations by defining cross validation rules. A cross-validation rule defines validation across segments and enforces whether a value of a particular segment can be combined with specific values of other segments to form a new combination.

The table compares segment validation to cross-segment validation:

<table>
<thead>
<tr>
<th>Type of validation</th>
<th>Type of control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment validation</td>
<td>Controls the values you can enter for a particular segment</td>
</tr>
<tr>
<td>Cross-segment validation</td>
<td>Controls the combinations of values that administrators and end users can create for key flexfields</td>
</tr>
</tbody>
</table>

**Note**

You can use cross-validation rules for any key flexfield that has cross-validation enabled. See the documentation for your key flexfield to determine if it supports cross validation.

Cross-validation rules prevent the creation of combinations with values that shouldn't coexist in the same combination. For example, your company requires that all revenue accounts must have a specific department. Therefore, account...
combinations that have revenue account values, such as all values between 4000 and 5999, must have a corresponding department value other than 000, which indicates no department is specified. You can define cross validation rules that disallow creation of combinations with incompatible segments, such as 4100-000 or 5000-000.

Alternatively, suppose your accounting key flexfield has an Organization segment with two possible values, 01 and 02. You also have a Natural Account segment with many possible values, but company policy requires that Organization 01 uses the natural account values 001 to 499 and Organization 02 uses the natural account values 500 to 999. You can create cross-validation rules to ensure that users cannot create a general ledger account with combinations of values such as 02-342 or 01-750.

The following aspects are important to understanding cross validation rules:

- Rule Definitions
- Enforcement
- Timing

**Rule Definitions**

Cross validation rules consist of the following information:

<table>
<thead>
<tr>
<th>Rule Feature</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Uniquely identifies cross validation rules in a deployment.</td>
</tr>
<tr>
<td>Description</td>
<td>Helps administrators identify the purpose of the rule.</td>
</tr>
<tr>
<td>Error message</td>
<td>Explains why the attempted combination violates the rule.</td>
</tr>
<tr>
<td>Start Date, End Date</td>
<td>Indicates the period of time when the rule is in effect.</td>
</tr>
<tr>
<td>Enabled</td>
<td>Determines whether the rule is enforced.</td>
</tr>
<tr>
<td>Condition filter</td>
<td>Determines the conditions under which an enabled cross validation rule should be evaluated.</td>
</tr>
<tr>
<td>Validation filter</td>
<td>Determines the validation that the rule enforces when that condition is met.</td>
</tr>
</tbody>
</table>

When the event specified in the condition filter is applicable, the validation filter condition must be satisfied before the combination can be created. If the event specified in the condition filter isn’t applicable, then the combination is considered to pass the rule and the rule won’t be evaluated even if it is enabled.

**Note**

If you don’t specify any statement in the condition filter, then the condition is always true and the rule is always evaluated.

**Enforcement**

Cross-validation prevents creation of invalid combinations by administrators using maintenance pages and end users using dynamic insertion in foreign key pages.
Enabled rules are enforced when there is an attempt to create a new combination of segment values. Disabled rules are ignored. Deleting the rule has the same effect, but you can re-enable a disabled rule.

Timing

When users attempt to create a new combination, the key flexfield evaluates any cross-validation rules that are enabled and in effect.

Warning

Cross-validation rules have no effect on combinations that already exist. The flexfield treats any existing invalid combinations that pre-date the rule as valid.

If you want to prevent users from using previously existing combinations that are no longer valid according to your cross-validation rules, manually disable those combinations using the combinations page for that key flexfield.

When defining a cross-validation rule, specify a start and end date to limit the time when the rule is in effect. The rule is valid for the time including the From and To dates.

Cross Validation Rules: Points to Consider

When you need key flexfield combinations of segment values validated across segments, you can optimize your cross validation rules to improve the experience of administrators and end users.

Consider the following when defining cross validation rules:

- Filters
- Rule Complexity
- Maintenance

Filters

A cross validation rule includes a condition filter and a validation filter.

The rule is evaluated using the following logic: If the condition filter is satisfied, then validate that the validation filter is satisfied.

1. The condition filter describes the event under which the rule will be evaluated. If the event specified in the condition filter isn’t applicable, then the rule won’t be evaluated even if it is enabled.

2. When the event specified in the condition filter is applicable, the validation filter condition must be satisfied before the combination can be created.

For example, if your organization has determined that a certain company value, Operations, cannot use a specific cost center, Marketing, you can define a cross validation rule to validate your combinations.

1. The rule evaluates the company condition filter.

2. When company is equal to Operations, the rule evaluates the cost center validation filter.
3. When cost center is equal to Marketing, the rule prevents a combination from being created.
4. The error message you defined for the rule displays to inform the user that the attempted combination violates the rule.

**Note**

This rule doesn't affect the creation of combinations with Marketing cost center and company values other than Operations.

**Rule Complexity**

For optimal performance and ease of understanding, define several simple validation rules instead of using one complex rule. Simple validation rules let you provide a more specific error message and are easier to maintain over time. Avoid rules that control validation across more than two segments, where possible. While you can define cross validation rules that span two or more segments, keep in mind that it becomes more difficult to interpret cross validation error messages and correct invalid key flexfield combinations as your rules encompass more segments.

**Maintenance**

To maintain consistent validation, review existing key flexfields when you update your cross validation rules. Regardless of your current validation rules, Oracle Fusion Applications accept a key flexfield combination if the combination already exists and is enabled. Therefore, to ensure accurate validation, you must review your existing combinations and disable any combinations that don't match the criteria of your new rules.

**Tip**

To keep this type of key flexfield maintenance to a minimum, decide upon your cross validation rules when you first set up your key flexfield structure. Define cross validation rules before creating combinations and before combinations are used in transactions.

If you want to prevent users from using previously existing combinations that are no longer valid according to your cross validation rules, disable those combinations using the combinations page.

**Creating a Cross Validation Rule: Example**

Create cross validation rules to prevent specific combinations of segment values in your account combinations, for example, preventing a particular cost center from being combined with a specific company value. Cross validation rules only affect the creation of new account combinations.

**Scenario**

Enter a new cross validation rule to prevent your InFusion America Inc. company value 01 from being combined with your marketing department value...
300 in an account combination. Your company, InFusion America Inc. does not have a marketing department.

1. Navigate to the Manage Cross-Validation Rules task from within your implementation project, and then click the Go to Task icon.

2. Select your InFusion America chart of accounts.

3. Click the Create icon.

4. Specify a unique rule Name, IFAM01, and an optional Description, Do not combine Marketing Department, 300 with InFusion America, company 01.

5. Enter an optional effective From Date of today. Check Enabled.

6. Click the Change filter condition on the Condition Filter. Enter Company equal to 01. The cross validation rule evaluates if Company 01 was entered and if it was entered, then the validation process continues to evaluate the rule.

Note

If you do not specify any statement in the condition filter, then the rule is always evaluated.

7. Click on the Change filter condition on the Validation Filter. Enter Cost Center is not equal to 300. When the rule is evaluated, an account combination must contain a cost center other than 300 before it can be created.

8. Enter an Error Message: Cost Center 300 is not allowed with Company 01. The message displays in the relevant user interfaces and processes when an account combination cannot be created because it violates the rule.

9. Click Save and Close.

Enabling Key Flexfield Segments for Business Intelligence: Points to Consider

A key flexfield that is registered in the database as enabled for Oracle Business Intelligence (BI) includes a BI Enabled setting for each of its segment instances. When a segment instance is BI-enabled, it is available for use in Oracle Business Intelligence.

The following aspects are important in understanding BI-enabled key flexfield segments.

- Flattening business components to use BI-enabled segments in Oracle BI
- Equalizing segments to prevent duplication and complexity in the flattened component
- Mapping attributes of flattened business components to logical objects in Oracle BI
- Managing the labels that map segments to logical objects in Oracle BI

After you deploy a business intelligence-enabled flexfield, use the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process to import
the flexfield changes into the Oracle Business Intelligence repository. Users can make use of the newly-generated attributes in business intelligence applications. For additional information about logical objects and import, refer to the Oracle Transactional Business Intelligence Administrator's Guide.

**Flattening**

When you deploy a business intelligence-enabled key flexfield, the deployment process generates an additional set of flattened business components for use in business intelligence. The flattened business components include attributes for business intelligence-enabled segment instances only.

If you assigned a label to a segment, the flattened components include a single attribute representing all segment instances with that label. If you didn’t assign a label, the flattened components include a discrete attribute for each BI-enabled segment instance in each structure.

**Mapping to Logical Objects in Business Intelligence**

You can simplify reporting by representing similar segments as a single logical object in Business Intelligence.

If you assign a label to segments that serve the same purpose in different structures, you can consolidate or equalize the segments into a single attribute. This prevents duplication and the extra workload and complexity that result from the flattening process. For example, an organization may have more than one definition of its key accounting flexfield to support different requirements for accounting reporting, or due to chart of accounts definitions from acquired organizations. A US Accounting Flexfield structure may have a segment called Subaccount to track project expenditures. The same type of information may be tracked in a UK accounting flexfield structure with a segment called Project. Equalize these two segments to create a single list of values for reporting.

Non-labeled segments aren’t equalized across context values, so the flattened components include a separate attribute for each segment for each structure.

---

**Note**

It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

Assign a label to a segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

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**Note**

Assigning a label to a segment serves to equalize the attribute across structures, as well as map the equalized attribute to business intelligence.

---

**Managing Labels**

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify
each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across structures.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label doesn’t exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, segments without labels cannot be equalized across structures. The flattened components include a separate attribute for each non-labeled segment in each structure.

**Note**
Segment labels serve other functions as well, as presented in Key Flexfields: Explained.

**Importing to Oracle Business Intelligence Repository**

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly flattened business components in business intelligence and then propagate the flexfield object changes. When you import the metadata into the Oracle Business Intelligence repository, you must do so as the FUSION_APPS_BI_APPID user.

**Note**
To import flexfield changes into the Oracle Business Intelligence repository in Oracle Cloud implementations, run the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process. For additional information about import, refer to the Oracle Transactional Business Intelligence Administrator’s Guide.

**Tip**
When you import a flexfield into the Oracle Business Intelligence repository, you see both <name>_ and <name>_c attributes for each segment, along with some other optional attributes. The <name>_ attribute contains the value. The <name>_c attribute contains the code of the value set that the value comes from, and is used for linking to the value dimension. You must import both attributes.

**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 Combinations Table for Entering Accounts and Employees**

The code combinations table supports entering account information, such as for expense accounts.

The figure shows the origin in the code combinations 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 combinations 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 combinations table.

<table>
<thead>
<tr>
<th>Structure Instance</th>
<th>Code Combination ID</th>
<th>Enabled</th>
<th>Organization</th>
<th>Division</th>
<th>Cost Center</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100345</td>
<td>Yes</td>
<td>US</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Segment</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>USWEST</td>
<td>US West Region</td>
</tr>
<tr>
<td>Division</td>
<td>SALES</td>
<td>Sales</td>
</tr>
<tr>
<td>Cost Center</td>
<td>400</td>
<td>Cost Center 400 US</td>
</tr>
<tr>
<td>Project</td>
<td>4599</td>
<td>Marketing Project</td>
</tr>
</tbody>
</table>

If dynamic combination creation isn't 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 doesn’t 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 is 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.
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 management repository provided by Oracle WebCenter Content Server. Users managing attachments have no real interaction with the repository unless the repository mode is enabled for attachments on specific business objects. In that case, users can share attachments among objects, update attachments by checking them out of and back into 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.

<table>
<thead>
<tr>
<th>Action</th>
<th>Privilege</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>Read Application Attachment (FND_READ_APPLICATION_ATTACHMENT_DATA)</td>
</tr>
<tr>
<td>Add or Update</td>
<td>Update Application Attachment (FND_UPDATE_APPLICATION_ATTACHMENT_DATA)</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete Application Attachment (FND_DELETE_APPLICATION_ATTACHMENT_DATA)</td>
</tr>
</tbody>
</table>

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.
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.
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:
Common HCM Configuration: Define Workforce Records

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.

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.

![Diagram showing inclusion and exclusion in a 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.

![Diagram showing geographic hierarchy and event coverage]

Hyderabad workers follow India events; Bangalore workers temporarily follow France events.
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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which countries must be included in the geographic tree?</td>
<td>Your enterprise has employees working in the US, the UK, India, and Japan.</td>
</tr>
<tr>
<td>Between which dates must the geographic tree version be enabled?</td>
<td>January 1, 2011 to December 31, 2011.</td>
</tr>
</tbody>
</table>

Task Summary
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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enterprise Locations</td>
</tr>
<tr>
<td>Code</td>
<td>ENT_LOC</td>
</tr>
<tr>
<td>Tree Structure</td>
<td>HCM Geographic Hierarchy Tree Structure</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enterprise Locations Version 1</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>January 1, 2011</td>
</tr>
<tr>
<td>Effective End Date</td>
<td>December 31, 2011</td>
</tr>
</tbody>
</table>

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.

Auditign 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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which calendar events must be included in the work schedule?</td>
<td>All public holidays</td>
</tr>
<tr>
<td>Which geographical location must the calendar events apply to?</td>
<td>India</td>
</tr>
<tr>
<td>What shifts must workers follow?</td>
<td>Day shift (9 a.m. to 5 p.m.). Night shift (5 p.m. to 1 a.m.).</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the name of the public holiday.</td>
</tr>
<tr>
<td>Category</td>
<td>Public Holiday</td>
</tr>
<tr>
<td>Start Date</td>
<td>Enter the date when the public holiday starts.</td>
</tr>
<tr>
<td>End Date</td>
<td>Enter the date when the public holiday ends.</td>
</tr>
<tr>
<td>Short Code</td>
<td>Enter a code to identify the public holiday.</td>
</tr>
<tr>
<td>Hierarchy Type</td>
<td>Geographic</td>
</tr>
</tbody>
</table>
| 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Day Shift</th>
<th>Night Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Day Shift</td>
<td>Night Shift</td>
</tr>
<tr>
<td>Start Time</td>
<td>0900 hrs</td>
<td>1700 hrs</td>
</tr>
<tr>
<td>Duration</td>
<td>8 hours</td>
<td>8 hours</td>
</tr>
<tr>
<td>Shift Detail Type</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Weekly Work Pattern</td>
</tr>
<tr>
<td>Length in Days</td>
<td>7</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Day Shift</th>
<th>Night Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Day</td>
<td>1 (Monday)</td>
<td>4 (Thursday)</td>
</tr>
<tr>
<td>End Day</td>
<td>3 (Wednesday)</td>
<td>5 (Friday)</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Work Schedule for Support</td>
</tr>
<tr>
<td>Category</td>
<td>Work</td>
</tr>
<tr>
<td>Type</td>
<td>Time</td>
</tr>
<tr>
<td>Effective From Date</td>
<td>01 January, 2011</td>
</tr>
<tr>
<td>Effective To Date</td>
<td>31 December, 2011</td>
</tr>
<tr>
<td>Pattern</td>
<td>Weekly Work Pattern</td>
</tr>
<tr>
<td>Exceptions</td>
<td>Public Holiday event category</td>
</tr>
<tr>
<td>Eligibility Profile</td>
<td>Support_Workers</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Type</td>
<td>Department</td>
</tr>
<tr>
<td>Name</td>
<td>Support department</td>
</tr>
<tr>
<td>Start Date</td>
<td>01 January, 2011</td>
</tr>
<tr>
<td>End Date</td>
<td>31 December, 2011</td>
</tr>
<tr>
<td>Starting Shift</td>
<td>Day Shift</td>
</tr>
<tr>
<td>Primary</td>
<td>Yes</td>
</tr>
</tbody>
</table>

6. Click Submit.

Modifying the Work Schedule of a Worker

1. On the Person Search page, search for Vijay Singh, and select that record.
2. From the Actions menu, click Manage Work Schedule Assignment.
3. On the Manage Work Schedules page, click the Add Row icon on the tool bar.
4. Complete the fields in the Schedules region, as shown in this table:
5. In the Exceptions region, click the Add Row icon on the tool bar.

6. Complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Click Create 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.</td>
</tr>
<tr>
<td>Type</td>
<td>Resource Exception</td>
</tr>
<tr>
<td>Name</td>
<td>Select Work Schedule for Support. In this example, when you search for the schedule in the Search and Select window, select the Filter Using Eligibility checkbox to display all work schedules created for the Support department.</td>
</tr>
<tr>
<td>Start Date</td>
<td>01 January, 2011</td>
</tr>
<tr>
<td>End Date</td>
<td>31 December, 2011</td>
</tr>
<tr>
<td>Starting Shift</td>
<td>Day Shift</td>
</tr>
<tr>
<td>Primary</td>
<td>Yes</td>
</tr>
<tr>
<td>Availability</td>
<td>Off Period</td>
</tr>
</tbody>
</table>

7. 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.

**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.

<table>
<thead>
<tr>
<th>Format Type</th>
<th>Usage</th>
<th>Default Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Name</td>
<td>For names that appear in reports.</td>
<td>[Last Name], [First Name] [Middle Name] [Title]</td>
</tr>
<tr>
<td>Display Name</td>
<td>For names that appear singly, for example, on the Person Management page header.</td>
<td>[First Name] [Prefix] [Last Name]</td>
</tr>
</tbody>
</table>
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]  

**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.

**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.

**Managing Person Name Styles: Explained**

Person name styles define the person name components for a country. Only one style can exist for a country, and name styles for some countries are predefined.
You can create name styles for countries that have none, and you can copy an existing style to use as the basis.
For countries that do not have a predefined person name style, the universal name style applies by default. If there are specific requirements for a country, you can create a new name style.
You can edit predefined name styles by creating additional components, selecting mandatory components, changing the order of components, and selecting LOVs for the components. However, you cannot delete predefined components and make mandatory components optional. You can delete only those components that were added to a predefined name style. You cannot delete a predefined name style.
You can create, edit, and delete custom name styles and its components any time. If a custom name style is deleted after person names have been created using that style, the universal name style applies by default.

**Person Name Components**

Last Name is a mandatory name component for all person name styles. You can set other person name components as mandatory, based on specific requirements for a country.
The name components Name Information 1 through Name Information 14 are reserved for localization requirements. You can use the components Name Information 15 through Name Information 30 to define specific person name components for a country. For example, if you want to capture Mother's Maiden
Name for a country, you can use the name component Name Information 15, and denote the display name for this component as Mother's Maiden Name.

**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.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER_NATIONAL_IDENTIFIER_TYPE</td>
<td>Type of a person's national identifier, such as social security number, civil registration number, or national insurance number</td>
<td>Extensible</td>
</tr>
<tr>
<td>PERSON_TYPE_STATUS</td>
<td>Status of a user person type, such as active or inactive</td>
<td>User</td>
</tr>
<tr>
<td>EMAIL_TYPE</td>
<td>Type of a person's e-mail address, such as home e-mail or work e-mail</td>
<td>Extensible</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A person can have only one work e-mail by default. If you want to add a secondary work e-mail, you must define another lookup type.</td>
<td></td>
</tr>
<tr>
<td>ADDRESS_TYPE</td>
<td>Type of a person's address, such as home address or mailing address</td>
<td>Extensible</td>
</tr>
<tr>
<td>PHONE_TYPE</td>
<td>Type of a person's phone, such as home phone or mobile phone</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_CM_MTHD</td>
<td>Communication methods for a person, such as e-mail or instant messenger</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_CONTACT_TIMES</td>
<td>Times of day when a specified phone number can be used, such as evenings or weekends</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_ETHNICITY</td>
<td>Person's ethnicity, such as Hispanic, Asian, or American Indian</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_RELIGION</td>
<td>Person's religion, such as Christianity, Hinduism, or Islam</td>
<td>Extensible</td>
</tr>
<tr>
<td>PROFESSION</td>
<td>Person's profession reported on a visa or work permit, such as engineer, nurse, or teacher</td>
<td>Extensible</td>
</tr>
<tr>
<td>TITLE</td>
<td>Person's title, such as Miss, Doctor, or Professor, forming part of the person's name</td>
<td>Extensible</td>
</tr>
</tbody>
</table>
### Document Information Lookups

Document information lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER_DRIVERS_LICENSE_TYPE</td>
<td>Type of a person's driver's license, such as permanent or temporary</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_CITIZENSHIP_STATUS</td>
<td>Status of a person's citizenship, such as active or expired</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_PASSPORT_TYPE</td>
<td>Type of a person's passport, such as emergency or regular</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_VISA_PERMIT_TYPE</td>
<td>Type of a person's visa or work permit, such as temporary worker or residence permit</td>
<td>Extensible</td>
</tr>
<tr>
<td>PER_VISA_PERMIT_STATUS</td>
<td>Status of a person's visa or work permit, such as pending or active</td>
<td>Extensible</td>
</tr>
</tbody>
</table>

### Disability Information Lookups

Disability information lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISABILITY_CATEGORY</td>
<td>Type of a person's disability, such as hearing loss or visual impairment</td>
<td>User</td>
</tr>
<tr>
<td>DISABILITY_REASON</td>
<td>Causes of a person's disability, such as accident or illness</td>
<td>Extensible</td>
</tr>
<tr>
<td>DISABILITY_STATUS</td>
<td>Status of a person's disability registration, such as approved or pending</td>
<td>User</td>
</tr>
</tbody>
</table>
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, then the process runs for the system date (today's date), and events are raised for changes that become current on that date.

If changes occur to person records daily, you are recommended to schedule Synchronize Person Records to run daily for the system date (that is, without specifying start and end dates).

**Note**

In the Coexistence for HCM environment, you run Synchronize Person Records after you upload person records to Oracle Fusion for the first time. For this run of the process, enter the start date of the oldest person record as the start date and leave the end date as the system date. When you load person records subsequently, run Synchronize Person Records for the system date (without specifying start and end dates). Do not schedule the process 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.

**Note**

You cannot inactivate a default user person type; you must first select a different user person type as the default.

**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.

**What's the difference between person name formats and person name styles?**

Person name formats determine the order of the person name components for a specific format type. The sequence of components for predefined name format types can be configured for a country. For example, Display Name can be defined as First Name, Last Name, and List Name can be defined as Last Name, First Name.

Person name styles define the person name components that can be captured for a country; for example, first name, last name, title, previous last name, known as, and so on. Person name styles can be configured by selecting the required name components for a country.
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.

<table>
<thead>
<tr>
<th>Assignment Status</th>
<th>HR Status</th>
<th>Payroll Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active - payroll eligible</td>
<td>Active</td>
<td>Process</td>
</tr>
<tr>
<td>Active - no payroll</td>
<td>Active</td>
<td>Do not process</td>
</tr>
<tr>
<td>Active - process when earning</td>
<td>Active</td>
<td>Process when earning</td>
</tr>
<tr>
<td>Active - process nonrecurring element entry</td>
<td>Active</td>
<td>Process nonrecurring element entry</td>
</tr>
<tr>
<td>Suspended - payroll eligible</td>
<td>Suspended</td>
<td>Process</td>
</tr>
<tr>
<td>Suspended - no payroll</td>
<td>Suspended</td>
<td>Do not process</td>
</tr>
<tr>
<td>Suspended - process when earning</td>
<td>Suspended</td>
<td>Process when earning</td>
</tr>
<tr>
<td>Suspended - process nonrecurring element entry</td>
<td>Suspended</td>
<td>Process nonrecurring element entry</td>
</tr>
<tr>
<td>Inactive - payroll eligible</td>
<td>Inactive</td>
<td>Process</td>
</tr>
<tr>
<td>Inactive - no payroll</td>
<td>Inactive</td>
<td>Do not process</td>
</tr>
<tr>
<td>Inactive - process when earning</td>
<td>Inactive</td>
<td>Process when earning</td>
</tr>
<tr>
<td>Inactive - process nonrecurring element entry</td>
<td>Inactive</td>
<td>Process nonrecurring element entry</td>
</tr>
</tbody>
</table>

**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.

**Payroll Status**

The payroll status Process When Earning indicates that payroll is processed only during payroll periods with earnings. This is typically used in countries with cumulative tax rules, to stop tax refunds when payments are not issued. The status Process Nonrecurring Element Entry indicates that only the active element entry for the nonrecurring element is processed. This is typically used for one-time payments for terminated employees.
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.
<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRACT_TYPE</td>
<td>Type values, such as fixed-term, full-time, and seasonal</td>
<td>User</td>
</tr>
</tbody>
</table>

**Employment Terms and Assignment Lookups**

Employment terms and assignment lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUDGET_MEASUREMENT_TYPE</td>
<td>Work measure values, such as headcount and FTE</td>
<td>Extensible</td>
</tr>
<tr>
<td>EMP_CAT</td>
<td>Assignment categories, such as full-time regular and part-time temporary</td>
<td>User</td>
</tr>
<tr>
<td>EMPLOYEE_CATG</td>
<td>Worker type values, such as white collar, blue collar, and civil servant</td>
<td>User</td>
</tr>
<tr>
<td>BARGAINING_UNIT_CODE</td>
<td>Codes that identify bargaining units, such as health professionals, steel workers, and public service workers</td>
<td>User</td>
</tr>
<tr>
<td>PER_SUPERVISOR_TYPE</td>
<td>Manager types, such as line manager, project manager, and technical manager</td>
<td>Extensible</td>
</tr>
</tbody>
</table>

**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.

**Terminations Lookups**

Terminations lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER_PDS_REHIRE_REASON</td>
<td>Reasons, such as misconduct and poor performance, for not recommending rehire of a worker</td>
<td>User</td>
</tr>
</tbody>
</table>

**Areas of Responsibility Lookups**

Areas of responsibility lookups are described in the following table.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
<th>Customization Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER_RESPONSIBILITYTYPES</td>
<td>Worker responsibilities, such as benefits representative, union representative and fire warden</td>
<td>Extensible</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Hierarchy Boundaries</th>
<th>Calculation</th>
<th>Relationship Strength (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100/1</td>
<td>100</td>
</tr>
<tr>
<td>1</td>
<td>100/2</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>100/3</td>
<td>33.3</td>
</tr>
<tr>
<td>3</td>
<td>100/4</td>
<td>25</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>People</th>
<th>Calculation</th>
<th>Relationship Strength (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100/1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>100/2</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>100/3</td>
<td>33.3</td>
</tr>
<tr>
<td>4</td>
<td>100/4</td>
<td>25</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Location</th>
<th>Relationship Strength (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same floor of building</td>
<td>100</td>
</tr>
<tr>
<td>Same building</td>
<td>80</td>
</tr>
<tr>
<td>Same postal code</td>
<td>60</td>
</tr>
<tr>
<td>Same town or city</td>
<td>40</td>
</tr>
<tr>
<td>Same country</td>
<td>20</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Relationship Strength (%)</th>
<th>Weighting</th>
<th>Result (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization hierarchy proximity</td>
<td>100</td>
<td>0.5</td>
<td>50</td>
</tr>
<tr>
<td>Position hierarchy proximity</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Manager hierarchy proximity</td>
<td>100</td>
<td>0.5</td>
<td>50</td>
</tr>
<tr>
<td>Location proximity</td>
<td>80</td>
<td>0.5</td>
<td>40</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Searcher Rating</th>
<th>Multiplying Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/2</td>
</tr>
<tr>
<td>2</td>
<td>1/1.5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Searcher Rating:</th>
<th>HR: Relationship Priority Factor 3</th>
<th>HR: Relationship Priority Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/3</td>
<td>1/4</td>
</tr>
<tr>
<td>2</td>
<td>1/2</td>
<td>1/2.5</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>HR: Relationship Priority Factor 5</td>
<td>1/5</td>
<td>1/3</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>HR: Relationship Priority Factor 6</td>
<td>1/6</td>
<td>1/3.5</td>
</tr>
</tbody>
</table>

If you increase the HR: Relationship Priority Factor value, you increase the effect of the searcher’s ratings relative to the other factors.

8. 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: \( \frac{210}{3} = 70\% \)

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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Age Value</th>
<th>Less Than Age Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Under 25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Age 25 to 34</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Age 35 to 44</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Age 45 to 54</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Age 55 to 64</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>Age 64 or Older</td>
<td>65</td>
<td>75</td>
</tr>
</tbody>
</table>

The determination rule and other settings for each age band are the same:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination Rule</td>
<td>First of calendar year</td>
</tr>
<tr>
<td>Age to Use</td>
<td>Person's</td>
</tr>
<tr>
<td>Units</td>
<td>Year</td>
</tr>
<tr>
<td>Rounding</td>
<td>None</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Length of Service Value</th>
<th>Less Than Length of Service Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Less Than 1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
The determination rule and other settings for each length-of-service band are the same:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period Start Date Rule</td>
<td>Date of hire (This sets the beginning of the period being measured.)</td>
</tr>
<tr>
<td>Determination Rule</td>
<td>End of year (This sets the end of the period being measured.)</td>
</tr>
<tr>
<td>Age to Use</td>
<td>Person's</td>
</tr>
<tr>
<td>Units</td>
<td>Year</td>
</tr>
<tr>
<td>Rounding</td>
<td>None</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Compensation Value</th>
<th>Less Than Compensation Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20000</td>
<td>0</td>
<td>20,000</td>
</tr>
<tr>
<td>Salary 20 to 34000</td>
<td>20,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Salary 35 to 49000</td>
<td>35,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Salary 50 to 75000</td>
<td>50,000</td>
<td>75,000</td>
</tr>
<tr>
<td>Salary 75 to 99000</td>
<td>75,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Salary 100 to 200000</td>
<td>100,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Salary 200000 Plus</td>
<td>200,000</td>
<td>999,999,999</td>
</tr>
</tbody>
</table>

The determination rule and other settings for each compensation band are the same:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination Rule</td>
<td>First of year</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>US Dollar</td>
</tr>
<tr>
<td>Source</td>
<td>Stated compensation</td>
</tr>
<tr>
<td>Rounding</td>
<td>Rounds to nearest hundred</td>
</tr>
</tbody>
</table>
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 eligibility criteria that meet any special requirements of your organization. Associate your criteria with eligibility profiles for benefits, compensation, performance management, and so on. For example, your organization wants to use work-at-home assignment as the eligibility criteria for a monthly telecommunications allowance. While the table and column already exist, the data is not available from existing eligibility criteria tabs when creating the eligibility profile. You must first define the work-at-home criteria so that you can then use it with an eligibility profile.
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 Attributes or Assignments table, you can:
  a. Select the table and column from a list.
  b. Select the lookup type to use to validate input values, including custom lookup types that you created for either table.
     For details, see the Setting Up Lookup-Based User-Defined Criteria: Worked Example topic.
  c. Optionally, specify a range of valid values, if the field stores a numeric value or a date.

To select the correct values for the column and lookup fields, you must understand the basic structure of the Person Attributes and Assignment tables, which store the eligibility criteria data.

- If the data is stored in a table other than the Person Attributes or Assignment tables, you must:
  a. Create a formula to retrieve the data from the table.
  b. Set the formula type to User-Defined Criteria.

You can define one or two sets of criteria in the User-Defined Criteria dialog box. The participant must meet the criteria defined in either set to be considered eligible or ineligible.

After you create your user-defined criteria, you can add it to an eligibility profile. Use it to make participants ineligible by selecting the Exclude check box when adding the user-defined criteria to an eligibility profile.

User-Defined Criteria: Examples

The following scenarios illustrate how you can create different types of user-defined criteria for use in eligibility profiles associated with benefits and compensation objects. In each example, you must:

1. Create the user-defined criteria using the Manage User-Defined Criteria task in the Plan Configuration work area.
2. Add the user-defined criteria to an eligibility profile using the Manage Eligibility Profile task.
3. Set the criteria values to use in the eligibility profile.
4. Associate the eligibility profile with the relevant benefits or compensation object.

Base Eligibility on a Custom Attribute

Your commercial diving company wants to offer different benefit rates to employees who dive to depths greater than 330 feet. In the Setup and Maintenance work area, you set up the lookup type, value set, and global segment of the Person Attributes descriptive flexfield table to store the data
for each employee. For details, see the Setting Up Lookup-Based User-Defined Criteria: Worked Example topic.

1. On either the create or edit page for user-defined criteria, set the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table</strong></td>
<td>Person Attributes</td>
</tr>
<tr>
<td><strong>Column</strong></td>
<td>BEN_DIVE_DEPTH</td>
</tr>
<tr>
<td><strong>Lookup</strong></td>
<td>BEN_DIVE_DEPTH</td>
</tr>
<tr>
<td><strong>Enable range validation one</strong></td>
<td>Selected</td>
</tr>
</tbody>
</table>

2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.
   You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Set 1 Meaning</strong></td>
<td>329</td>
</tr>
<tr>
<td><strong>Set 1 To Meaning</strong></td>
<td>9999</td>
</tr>
<tr>
<td><strong>Exclude</strong></td>
<td>Clear</td>
</tr>
</tbody>
</table>

4. Associate the eligibility profile with a benefit variable rate profile.

**Base Eligibility on a Formula**

Your 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. In the Setup and Maintenance work area, you used the Manage Fast Formula task to create the formula that calculates Scheduled Hours minus 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.

1. On the create or edit page for user-defined criteria, enter the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access One Formula</strong></td>
<td>Worked_Sched_Hours_Pct</td>
</tr>
<tr>
<td><strong>Enable range validation one</strong></td>
<td>Clear</td>
</tr>
</tbody>
</table>

2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.
   You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.
4. Associate the eligibility profile 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.

**Use Eligibility to Exclude**

Your organization wants to exclude workers with a work-at-home assignment from a transportation allowance.

1. On the create or edit page for user-defined criteria, set the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table</td>
<td>Assignment</td>
</tr>
<tr>
<td>Column</td>
<td>Work_at_home</td>
</tr>
<tr>
<td>Lookup</td>
<td>YES_NO</td>
</tr>
<tr>
<td>Enable range validation</td>
<td>Clear</td>
</tr>
</tbody>
</table>

2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.

   You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1 Meaning</td>
<td>Yes</td>
</tr>
<tr>
<td>Exclude</td>
<td>Selected</td>
</tr>
</tbody>
</table>

4. Associate the eligibility profile with the transportation allowance compensation object.

**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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>1</td>
</tr>
<tr>
<td>Minimum Hours</td>
<td>30</td>
</tr>
<tr>
<td>Maximum Hours</td>
<td>40</td>
</tr>
<tr>
<td>Scheduled Enrollment Periods</td>
<td>Weekly</td>
</tr>
<tr>
<td>Determination Rule</td>
<td>End of previous quarter</td>
</tr>
</tbody>
</table>

Set the values for the second range as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>2</td>
</tr>
<tr>
<td>Minimum Hours</td>
<td>130</td>
</tr>
<tr>
<td>Maximum Hours</td>
<td>160</td>
</tr>
<tr>
<td>Scheduled Enrollment Periods</td>
<td>Monthly</td>
</tr>
<tr>
<td>Determination Rule</td>
<td>End of previous quarter</td>
</tr>
</tbody>
</table>

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, usage, and assignment 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, compensation objects and the Performance Management object.

- 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, Usage, and Assignment Usage

When you create an eligibility profile, you specify whether the profile applies to participants or dependents.

- Use participant profiles to define criteria for a person who has a work relationship with the legal employer as an employee, contingent worker, or nonworker.

- Use dependent profiles for participants’ spouses, family members, or other individuals who qualify as dependents. Dependent profiles can be associated with only benefit plans and plan types.

An eligibility profile’s usage determines the type of objects with which the profile can be associated. For example, set the profile usage to:

- **Benefits** to make the profile available to associate with benefits objects, such as programs, plans, plan types, options, variable rate profiles, and variable coverage profiles

- **Compensation** to make the profile available to associate with individual and workforce compensation plans as well as total compensation statements

- **Global** to make the profile available to multiple business processes

- **Goals** to make the profile available to associate with goals when creating a goal plan or mass assigning goals, or to associate with goal plans

For Performance Management, you can select any usage.

When you create an eligibility profile, you specify which assignment to use with it. For profiles where usage is Compensation or Performance, select Specific Assignment. For Performance Management eligibility profiles, you must select the Participant type and Specific Assignment as the assignment to use.
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, compensation objects and the Performance Management object.

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:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Assignment Category</td>
<td>Full-Time</td>
</tr>
<tr>
<td>Derived Factor</td>
<td>Age</td>
<td>Select the age derived factor you created previously, and then select the Exclude check box.</td>
</tr>
</tbody>
</table>

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 participant type to Participant, profile usage to Compensation or Global, and use in assignment to Specific Assignment. Add the following criteria for each rating category:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Performance Rating</td>
<td>Select the performance template and rating name, and then select the highest rating value.</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Work Location</td>
<td>Select India as the work location, and then select the Exclude check box.</td>
</tr>
</tbody>
</table>

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:

![Diagram showing 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Age Under 30+Non-Smoking</td>
</tr>
<tr>
<td>Profile Usage</td>
<td>Benefits</td>
</tr>
</tbody>
</table>
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.
Common HCM Configuration: Define Workforce Business Processes and Events

Define Checklists

Checklist Components: How They Work 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.

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

HR Specialists can create and maintain tasks in checklist templates and the allocated checklists; Managers can create and maintain tasks in their allocated checklists only. You can enter the task duration and specify if the task is required, during task creation. When the task is allocated, the target end date is derived based on the duration entered. The checklist status is automatically set to Completed once all the required tasks are complete though you can manually change the status anytime.

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 can select a performer in one of the following three ways:

- Specify the performer’s areas of responsibility in the checklist template; during checklist allocation, the persons with the selected responsibilities are automatically assigned as performers for the tasks and notified of the assignment.
- Select the worker as the performer
- Select the worker’s line manager as the performer

Based on your selection, the performer names are derived and displayed for the tasks in the allocated checklist. Note that you can update the performer details for a task in an allocated checklist until the time the task is allocated to a user.

**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 view the tasks within an allocated checklist and monitor the status themselves or assign alternative owners for the tasks. If a performer is invalid (person derived as performer is terminated, for example) or not assigned, the task owner is designated as the performer by default. Note that if a checklist is assigned automatically to a person based on an action, then the task owner is the user who performed the action on the person.

**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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocate checklist automatically?</td>
<td>Yes, checklist is allocated automatically to persons experiencing new hire action.</td>
</tr>
</tbody>
</table>
| Which tasks to include in the checklist?           | • Plan and Schedule Training  
• Issue Laptop  
• Procure Meal Vouchers |
| What are the task performers’ responsibilities?    | • The worker’s line manager is the performer of the task Plan and Schedule Training  
• Performer for the task Issue Laptop has the responsibility type IT Support Representative.  
• The worker himself is the performer of the task Procure Meal Vouchers. |
| Do eligibility rules apply to any tasks?           | • Issue Laptop task applies to manager users only  
• Procure Meal Vouchers task applies to work location India only |
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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>New Hire</td>
</tr>
<tr>
<td>Category</td>
<td>On Boarding</td>
</tr>
<tr>
<td>Action</td>
<td>Hire</td>
</tr>
</tbody>
</table>

**Creating Checklist Tasks**

1. In the Tasks region, click `Create`.
2. For each task, complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Plan and Schedule Training Task</th>
<th>Issue Laptop Task</th>
<th>Procure Meal Vouchers Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Eligibility Profile</td>
<td>Manager_Users</td>
<td>India_Work_Location</td>
<td></td>
</tr>
<tr>
<td>Performer</td>
<td>Line Manager</td>
<td>Responsibility Type</td>
<td>Worker</td>
</tr>
<tr>
<td>Responsibility Type</td>
<td>IT Support Representative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Age Value</th>
<th>Less Than Age Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Under 25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Age 25 to 34</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Age 35 to 44</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Age 45 to 54</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Age 55 to 64</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>Age 64 or Older</td>
<td>65</td>
<td>75</td>
</tr>
</tbody>
</table>

The determination rule and other settings for each age band are the same:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination Rule</td>
<td>First of calendar year</td>
</tr>
<tr>
<td>Age to Use</td>
<td>Person’s</td>
</tr>
<tr>
<td>Units</td>
<td>Year</td>
</tr>
<tr>
<td>Rounding</td>
<td>None</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Length of Service Value</th>
<th>Less Than Length of Service Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Less Than 1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Service 1 to 4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Service 5 to 9</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Service 10 to 14</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Service 15 to 19</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Service 20 to 24</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Service 25 to 29</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Service 30 Plus</td>
<td>30</td>
<td>999</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Derived Factor Name</th>
<th>Greater Than or Equal To Compensation Value</th>
<th>Less Than Compensation Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20000</td>
<td>0</td>
<td>20,000</td>
</tr>
<tr>
<td>Salary 20 to 34000</td>
<td>20,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Salary 35 to 49000</td>
<td>35,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Salary 50 to 75000</td>
<td>50,000</td>
<td>75,000</td>
</tr>
<tr>
<td>Salary 75 to 99000</td>
<td>75,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Salary 100 to 200000</td>
<td>100,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Salary 200000 Plus</td>
<td>200,000</td>
<td>999,999,999</td>
</tr>
</tbody>
</table>

The determination rule and other settings for each compensation band are the same:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination Rule</td>
<td>First of year</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>US Dollar</td>
</tr>
<tr>
<td>Source</td>
<td>Stated compensation</td>
</tr>
<tr>
<td>Rounding</td>
<td>Rounds to nearest hundred</td>
</tr>
</tbody>
</table>

**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 eligibility criteria that meet any special requirements of your organization. Associate your criteria with eligibility profiles for benefits, compensation, performance management, and so on. For example, your organization wants to use work-at-home assignment as the eligibility criteria for a monthly telecommunications allowance. While the table and column already exist, the data is not available from existing eligibility criteria tabs when creating the eligibility profile. You must first define the work-at-home criteria so that you can then use it with an eligibility profile.

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 Attributes or Assignments table, you can:
  a. Select the table and column from a list.
  b. Select the lookup type to use to validate input values, including custom lookup types that you created for either table.
     For details, see the Setting Up Lookup-Based User-Defined Criteria: Worked Example topic.
  c. Optionally, specify a range of valid values, if the field stores a numeric value or a date.
To select the correct values for the column and lookup fields, you must understand the basic structure of the Person Attributes and Assignment tables, which store the eligibility criteria data.

- If the data is stored in a table other than the Person Attributes or Assignment tables, you must:
  
a. Create a formula to retrieve the data from the table.

b. Set the formula type to **User-Defined Criteria**.

You can define one or two sets of criteria in the User-Defined Criteria dialog box. The participant must meet the criteria defined in either set to be considered eligible or ineligible.

After you create your user-defined criteria, you can add it to an eligibility profile. Use it to make participants ineligible by selecting the **Exclude** check box when adding the user-defined criteria to an eligibility profile.

**User-Defined Criteria: Examples**

The following scenarios illustrate how you can create different types of user-defined criteria for use in eligibility profiles associated with benefits and compensation objects. In each example, you must:

1. Create the user-defined criteria using the Manage User-Defined Criteria task in the Plan Configuration work area.
2. Add the user-defined criteria to an eligibility profile using the Manage Eligibility Profile task.
3. Set the criteria values to use in the eligibility profile.
4. Associate the eligibility profile with the relevant benefits or compensation object.

**Base Eligibility on a Custom Attribute**

Your commercial diving company wants to offer different benefit rates to employees who dive to depths greater than 330 feet. In the Setup and Maintenance work area, you set up the lookup type, value set, and global segment of the Person Attributes descriptive flexfield table to store the data for each employee. For details, see the Setting Up Lookup-Based User-Defined Criteria: Worked Example topic.

1. On either the create or edit page for user-defined criteria, set the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table</td>
<td>Person Attributes</td>
</tr>
<tr>
<td>Column</td>
<td>BEN_DIVE_DEPTH</td>
</tr>
<tr>
<td>Lookup</td>
<td>BEN_DIVE_DEPTH</td>
</tr>
<tr>
<td>Enable range validation one</td>
<td>Selected</td>
</tr>
</tbody>
</table>
2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.

   You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1 Meaning</td>
<td>329</td>
</tr>
<tr>
<td>Set 1 To Meaning</td>
<td>9999</td>
</tr>
<tr>
<td>Exclude</td>
<td>Clear</td>
</tr>
</tbody>
</table>

4. Associate the eligibility profile with a benefit variable rate profile.

**Base Eligibility on a Formula**

Your 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. In the Setup and Maintenance work area, you used the Manage Fast Formula task to create the formula that calculates Scheduled Hours minus 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.

1. On the create or edit page for user-defined criteria, enter the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access One Formula</td>
<td>Worked_Sched_Hours_Percen</td>
</tr>
<tr>
<td>Enable range validation one</td>
<td>Clear</td>
</tr>
</tbody>
</table>

2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.

   You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1 Meaning</td>
<td>Yes</td>
</tr>
<tr>
<td>Exclude</td>
<td>Clear</td>
</tr>
</tbody>
</table>

4. Associate the eligibility profile 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.
Use Eligibility to Exclude

Your organization wants to exclude workers with a work-at-home assignment from a transportation allowance.

1. On the create or edit page for user-defined criteria, set the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table</td>
<td>Assignment</td>
</tr>
<tr>
<td>Column</td>
<td>Work_at_home</td>
</tr>
<tr>
<td>Lookup</td>
<td>YES_NO</td>
</tr>
<tr>
<td>Enable range validation</td>
<td>Clear</td>
</tr>
</tbody>
</table>

2. On either the create or edit page for the eligibility profile, add the user-defined criteria to an eligibility profile.

3. On the Other tab, User-Defined Criteria subtab, set the following values.

You might have to refresh the Meaning list before you see the choice that you want. To do so, click another subtab, such as Formula, and then click the User-Defined Criteria tab again.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1 Meaning</td>
<td>Yes</td>
</tr>
<tr>
<td>Exclude</td>
<td>Selected</td>
</tr>
</tbody>
</table>

4. Associate the eligibility profile with the transportation allowance compensation object.

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>1</td>
</tr>
<tr>
<td>Minimum Hours</td>
<td>30</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Hours</td>
<td>40</td>
</tr>
<tr>
<td>Scheduled Enrollment Periods</td>
<td>Weekly</td>
</tr>
<tr>
<td>Determination Rule</td>
<td>End of previous quarter</td>
</tr>
</tbody>
</table>

Set the values for the second range as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>2</td>
</tr>
<tr>
<td>Minimum Hours</td>
<td>130</td>
</tr>
<tr>
<td>Maximum Hours</td>
<td>160</td>
</tr>
<tr>
<td>Scheduled Enrollment Periods</td>
<td>Monthly</td>
</tr>
<tr>
<td>Determination Rule</td>
<td>End of previous quarter</td>
</tr>
</tbody>
</table>

### 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, usage, and assignment 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, compensation objects and the Performance Management object.
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, Usage, and Assignment Usage

When you create an eligibility profile, you specify whether the profile applies to participants or dependents.

- Use participant profiles to define criteria for a person who has a work relationship with the legal employer as an employee, contingent worker, or nonworker.
- Use dependent profiles for participants’ spouses, family members, or other individuals who qualify as dependents. Dependent profiles can be associated with only benefit plans and plan types.

An eligibility profile’s usage determines the type of objects with which the profile can be associated. For example, set the profile usage to:

- **Benefits** to make the profile available to associate with benefits objects, such as programs, plans, plan types, options, variable rate profiles, and variable coverage profiles
- **Compensation** to make the profile available to associate with individual and workforce compensation plans as well as total compensation statements
- **Global** to make the profile available to multiple business processes
- **Goals** to make the profile available to associate with goals when creating a goal plan or mass assigning goals, or to associate with goal plans

For Performance Management, you can select any usage.

When you create an eligibility profile, you specify which assignment to use with it. For profiles where usage is Compensation or Performance, select Specific Assignment. For Performance Management eligibility profiles, you must select the Participant type and Specific Assignment as the assignment to use.

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
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- 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, compensation objects and the Performance Management object.

**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:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Assignment Category</td>
<td>Full-Time</td>
</tr>
<tr>
<td>Derived Factor</td>
<td>Age</td>
<td>Select the age derived factor you created previously, and then select the <strong>Exclude</strong> check box.</td>
</tr>
</tbody>
</table>

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 participant type to Participant, profile usage to Compensation or Global, and use in assignment to Specific Assignment.

Add the following criteria for each rating category:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Performance Rating</td>
<td>Select the performance template and rating name, and then select the highest rating value.</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Criteria Type</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Work Location</td>
<td>Select India as the work location, and then select the Exclude check box.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the profile type?</td>
<td>Participant</td>
</tr>
<tr>
<td>What type of object is associated with this profile?</td>
<td>Variable rate for benefits offering</td>
</tr>
<tr>
<td>What types of object are defined in this profile?</td>
<td>Age derived factor (must have been previously defined)</td>
</tr>
<tr>
<td>Uses Tobacco criteria</td>
<td></td>
</tr>
<tr>
<td>What are the criteria values?</td>
<td>Age: Under 30</td>
</tr>
<tr>
<td></td>
<td>Tobacco Use: None</td>
</tr>
<tr>
<td>Should persons meeting these criteria be included or excluded from eligibility?</td>
<td>Included</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Age Under 30+Non-Smoking</td>
</tr>
<tr>
<td>Profile Usage</td>
<td>Benefits</td>
</tr>
<tr>
<td>Description</td>
<td>Participant, age under 30, non smoker</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>Assignment to Use</td>
<td>Any assignment</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which predefined event type is closest to meeting my business needs?</td>
<td>PhoneUpdate</td>
</tr>
<tr>
<td>What additional data must be captured?</td>
<td>Extension</td>
</tr>
<tr>
<td>What condition triggers this event?</td>
<td>Updates to telephone extension data</td>
</tr>
<tr>
<td>What rules must be met to trigger this event?</td>
<td>Rule to detect changes to work telephone data</td>
</tr>
</tbody>
</table>

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
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:

<table>
<thead>
<tr>
<th>Field or Tab</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Object</td>
<td>PhoneEO</td>
</tr>
<tr>
<td>Rule</td>
<td>eo.New(&quot;PhoneType&quot;) &gt; &quot;W&quot; &amp; eo.New(&quot;PhoneType&quot;) &lt; &quot;X&quot;</td>
</tr>
<tr>
<td>DML Mode</td>
<td>Update</td>
</tr>
<tr>
<td>External Handlers Published Event Name</td>
<td>ChangedPersonKeywords</td>
</tr>
</tbody>
</table>

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 starts a custom business process.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What condition triggers this event?</td>
<td>Change to termination date data.</td>
</tr>
<tr>
<td>What process will be triggered by this event?</td>
<td>Custom process: NotifiedTerminationDate.</td>
</tr>
</tbody>
</table>

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
   • AdjustedSycDate
   • 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.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;</td>
<td>Greater than</td>
</tr>
<tr>
<td>&lt;</td>
<td>Less than</td>
</tr>
<tr>
<td>==</td>
<td>Equals</td>
</tr>
<tr>
<td>&amp;</td>
<td>And</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

Details about the SOA framework are in the Oracle Fusion Middleware Developer’s Guide for Oracle SOA Suite. The Oracle Enterprise Repository for Oracle Fusion Applications home page describes how to locate and view business events.

**SOA Services and Published Events**

- You can create and publish business events to the SOA framework. Refer to the Oracle Fusion Middleware Developer’s Guide for Oracle SOA Suite.

  See: Using Business Events and the Event Delivery Network

- You can use Oracle Enterprise Repository for Oracle Fusion Applications to locate existing assets, such as published events and services. Refer to the Oracle Enterprise Repository home page, http://fusionappsoer.oracle.com.

**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:
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.

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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Values</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Buffer Size</td>
<td>Used for array inserts and updates of latest balances, based on one row per balance.</td>
<td>Maximum: 1000. Minimum: 1.</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shuffle Chunk Processing</td>
<td>Random processing of order chunks for assignment actions.</td>
<td>Yes, No</td>
<td>No</td>
</tr>
<tr>
<td>Chunk Size</td>
<td>Number of payroll relationship actions processed together.</td>
<td>Maximum: 16000. Minimum: 1.</td>
<td>20</td>
</tr>
<tr>
<td>Cost Buffer Size</td>
<td>Used for array insert and select statements when calculating the costing of the payroll run results.</td>
<td>Maximum: 1000. Minimum: 1.</td>
<td>500</td>
</tr>
<tr>
<td>Element Entry Buffer Size</td>
<td>Buffer size used in the initial array selects of element entries, element entry values, run results, and run result values per assignment.</td>
<td>Maximum: 1000. Minimum: 1.</td>
<td>500</td>
</tr>
<tr>
<td>Logging Area</td>
<td>Area where code logging can be performed.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment ID to End Logging</td>
<td>Assignment ID that ends logging.</td>
<td>All assignments</td>
<td></td>
</tr>
<tr>
<td>Assignment ID to Start Logging</td>
<td>Assignment ID that starts logging.</td>
<td>All assignments</td>
<td></td>
</tr>
<tr>
<td>Logging Category</td>
<td>Helps investigates problems with large volumes of detailed data.</td>
<td>GMPE or blank for no logging. You can specify multiple values.</td>
<td>No logging.</td>
</tr>
<tr>
<td>Maximum Number of Payroll Relationship Actions to Roll Back</td>
<td>Number of payroll relationship actions that can be rolled back, when rolling back a process.</td>
<td>Minimum: 1</td>
<td>50</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Maximum Errors Allowed</td>
<td>Number of payroll relationship actions that can be rolled back, when rolling back a process.</td>
<td>Minimum: 0</td>
<td></td>
</tr>
<tr>
<td>Maximum Iterations Allowed per Run Action</td>
<td>Maximum number of iterations allowed per run action within Net to Gross calculations within the Payroll Run.</td>
<td>Minimum: 0</td>
<td></td>
</tr>
<tr>
<td>Notifications Expiration Offset</td>
<td>Number of days before a payroll flow notification is automatically deleted.</td>
<td>Minimum: 0</td>
<td></td>
</tr>
<tr>
<td>Process Timeout</td>
<td>Number of minutes before the Run Balance Generation process times out.</td>
<td>Minimum: 0</td>
<td></td>
</tr>
<tr>
<td>Remove Report Assignment Actions</td>
<td>Removes report processing actions after reports are generated.</td>
<td>Yes, No</td>
<td></td>
</tr>
<tr>
<td>Run Result Buffer Size</td>
<td>Used for array inserts and updates, based on 1 row for each payroll run result.</td>
<td>Maximum: 1000</td>
<td>Minimum: 1</td>
</tr>
<tr>
<td>Override Location for Tax Libraries</td>
<td>Directory location for Quantum tax libraries.</td>
<td>There are no set values. Values for this parameter would be directory structures on the client site.</td>
<td></td>
</tr>
<tr>
<td>Accounting Date for Transfer to General Ledger</td>
<td>The date earned or the process date of the payroll run that is used to transfer and post journal entries for costing results to Oracle Fusion General Ledger.</td>
<td>E = Date Earned</td>
<td>P = Process Date</td>
</tr>
<tr>
<td>Reversal and Balance Adjustment Accounting Date</td>
<td>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.</td>
<td>T = Transfer using end date of the Transfer to Subledger Accounting task as the accounting date</td>
<td>P = Use process date of the reversal or balance adjustment as the accounting date</td>
</tr>
<tr>
<td>Threads</td>
<td>Total number of subprocesses that can run from the Oracle Enterprise Scheduler Service.</td>
<td>Minimum: 1</td>
<td></td>
</tr>
<tr>
<td>Wage Basis Rules Buffer Size</td>
<td>Used in array selects from the PAY_TAXABILITY_RULES table within the Payroll Calculation process.</td>
<td>Minimum: 100</td>
<td>500</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>-----</td>
</tr>
<tr>
<td>Trace</td>
<td>Enables the database trace facility for application processes written in C only.</td>
<td>Yes, No</td>
<td>No</td>
</tr>
<tr>
<td>Trace Level</td>
<td>Sets the trace level of the trace event. To generate the finest level of detail, enter the highest value.</td>
<td>1, 4, 8, 12</td>
<td>None</td>
</tr>
<tr>
<td>User Messaging</td>
<td>Enables detailed logging of user-readable information to the PAY_MESSAGE_LINES table.</td>
<td>Yes, No</td>
<td>No</td>
</tr>
</tbody>
</table>

**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.

**Note**

Using threads and subprocesses may also improve performance if you are using Oracle Fusion Global Payroll Interface.

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.

**Note**

This does not apply to all processes, such as Generate Check Payments and Retroactive Pay.

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.

**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.

**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:

<table>
<thead>
<tr>
<th>Parameter Value</th>
<th>Logging Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Balance Information.</td>
<td>Provides output information that shows the creation and maintenance of balances used during payroll processing.</td>
</tr>
<tr>
<td>C</td>
<td>C cache structures information.</td>
<td>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.</td>
</tr>
<tr>
<td>E</td>
<td>Element entry information.</td>
<td>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.</td>
</tr>
<tr>
<td>F</td>
<td>Formula information.</td>
<td>Provides output information that shows details of formula execution, including formula contexts, inputs, and outputs.</td>
</tr>
<tr>
<td>G</td>
<td>General logging information.</td>
<td>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.</td>
</tr>
<tr>
<td>L</td>
<td>Balance fetching information.</td>
<td>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.)</td>
</tr>
<tr>
<td>M</td>
<td>Entry or exit routing information.</td>
<td>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.</td>
</tr>
<tr>
<td>P</td>
<td>Performance information</td>
<td>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.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Details</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>Q</td>
<td>C cache query information.</td>
<td>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.</td>
</tr>
<tr>
<td>R</td>
<td>Run results information.</td>
<td>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.</td>
</tr>
<tr>
<td>S</td>
<td>C cache ending status information.</td>
<td>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.</td>
</tr>
<tr>
<td>T and Z</td>
<td>PL/SQL detail and PL/SQL output.</td>
<td>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.</td>
</tr>
<tr>
<td>V (USA and Canada only)</td>
<td>Vertex tax calculation information.</td>
<td>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.</td>
</tr>
</tbody>
</table>

**FORMULA EXECUTION LOGGING**

Formula execution logging is the code area where logging is performed. This 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. The default is no logging.

**Note**

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.

Here are the values that you can use for formula execution logging:

- d = database item cache access
- D = database item cache dump
- f = formula cache access
- F = formula cache dump
- i = formula input/output values
- w = working storage area access
- W = working storage area dump
- n = nested calls
- c = change contexts
- s = SQL execution (database item and PLSQL formula function calls)
- m = miscellaneous
- T = trace (very large level that provides the inputs and outputs of every call made when executing a formula)
- 1 = level 1 (combination of i, m, f, and C)
- 2 = level 2 (combination of 1, d, w, c, and n)
• 3 = level 3 (combination of 2, D, W, and s)
• 4 = level 4 (combination of 3 and F)
• 5 = level 5 (combination of 4 and T)

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.
Common HCM Configuration: Define Extracts

Defining an Extract: Worked Example

This example demonstrates the steps required to create an extract definition using the Professional interface. 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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many extracts do I need to create to produce this type of report?</td>
<td>You create one extract definition to define a headcount report.</td>
</tr>
<tr>
<td>What type of extract do I create?</td>
<td>You create a HR Archive extract.</td>
</tr>
<tr>
<td>How many data groups do I need to create?</td>
<td>In this example there are 2 functional groups of information, therefore you create two data groups, one for department and one for employees.</td>
</tr>
</tbody>
</table>
| How many records do I need to create?                      | You decide the number of records based on the sub-group of attributes within a data group. In this example, you create two records for the department data group:  
  - Department Details  
  - Department Summary  
  You create one record for the employees data group:  
  Employee Details. |
How many attributes do I need to create? You decide the number of attributes based on the specific information required for that report. In this example, create the following attributes for the Department Details record:

- Department Name
- Department Location

For the Department Summary record, create the following attributes:

- Record Code
- Report Date
- Employee Count

For the Employees Details record, create the following attributes:

- Full Name
- Gender
- Date of Birth
- Salary
- Bonus
- Tax Rate

Do I need to create any fast formulas? You can use fast formulas at the following levels:

- Extract Criteria level to determine certain conditions.
- Extract Rule level to derive attribute values.
- Extract Advanced Condition level to specify complex conditions.
- Extract Record level to automatically generate formulas when you use the Generate Formula option.

Creating an Extract Definition

1. On the Manage HCM Extract Definitions page click on the Create icon to create a new extract.

   Use the Switch Layout button to open the extract in the Simplified interface. The Simplified interface is an easy-to-use graphical interface for defining and designing HCM extracts. You can perform most of the tasks for defining the extract in the Simplified interface, however to enter an effective date, you must use the Professional interface.

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 Data Group
   - Parameter Group
   - Report Category
   - Request ID
   - Start Date

Creating Extract Data Groups

1. Select the Extract Data Group link from the navigation tree to open the Extract Data Groups region.

2. Click on Create to define a new data group. A data group represents data that belongs to one or more logical data entities.

3. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Departments</td>
</tr>
<tr>
<td>User Entity</td>
<td>PER_EXT_SEC_ORGANIZATION_UE</td>
</tr>
<tr>
<td>Root Data Group</td>
<td>Yes (By selecting this checkbox you select this data group as the starting point for the extract execution.)</td>
</tr>
</tbody>
</table>

4. Select Save and Create Another to create a data group for Employees.

5. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Employees</td>
</tr>
<tr>
<td>User Entity</td>
<td>PER_EXT_SEC_ASSIGNMENT_UE</td>
</tr>
<tr>
<td>Root Data Group</td>
<td>No</td>
</tr>
</tbody>
</table>

Creating Extract Data Group Connections

1. Select Extract Data Group in the navigation tree to display the data groups in a table. Data group connections enable you to define the master-detail of parent-child relationship between the entities. For example, the Employees and Departments data groups are linked with Department ID.
2. Select the Employees Data Group and define the data group connection details.

3. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Data Group</td>
<td>Departments</td>
</tr>
<tr>
<td>Parent Data Group Database Item</td>
<td>PER_EXT_ORG_ORGANIZATION_ID</td>
</tr>
<tr>
<td>Data Group Database Item</td>
<td>PER_EXT_ASG_ORG_ID</td>
</tr>
</tbody>
</table>

4. Define the data group criteria for each data group. Data group 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 Data Group 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 data group 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 Data Group to identify which data group the application processes next.

2. Create two records for the Departments Data Group.

3. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Department Summary</th>
<th>Department Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Department Summary</td>
<td>Department Details</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Sequence</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Trailer Record</td>
<td>Header Record</td>
</tr>
<tr>
<td>Process Type</td>
<td>Fast Formula</td>
<td>Fast Formula</td>
</tr>
<tr>
<td>Next Data Group</td>
<td>NA</td>
<td>Employees</td>
</tr>
</tbody>
</table>

4. Save the records, then select the Employees Data Group and select the Create icon in the Extract Records region.

5. Create one record for the Employees Data Group.

6. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Employee Details</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Sequence</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Detail Record</td>
</tr>
<tr>
<td>Process Type</td>
<td>Fast Formula</td>
</tr>
</tbody>
</table>
Creating Attributes

1. Select the Departments Data Group from the navigation tree and select the Department Details record.

   An extract attribute is an individual field of a record.

2. Create the following extract attributes for the Department Details record and select Save.

3. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Department Name</td>
<td>Department Location</td>
</tr>
<tr>
<td>Type</td>
<td>Database item group</td>
<td>Database item group</td>
</tr>
<tr>
<td>Database Item Group</td>
<td>Organization Name</td>
<td>Organization Location Country</td>
</tr>
</tbody>
</table>

4. Save the record, then select the Department Summary record.

5. Select the Create icon in the Extract Attributes region.

6. Create the following extract attributes for the Department Summary record and select Save.

7. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Record Code</td>
<td>Report Date</td>
<td>Employee Count</td>
</tr>
<tr>
<td>Data Type</td>
<td>Text</td>
<td>Date</td>
<td>Number</td>
</tr>
<tr>
<td>Type</td>
<td>String</td>
<td>Parameter</td>
<td>Summary Element</td>
</tr>
<tr>
<td>String Value</td>
<td>999</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Parameter</td>
<td>Effective Date</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Aggregate Function</td>
<td>NA</td>
<td>NA</td>
<td>Count</td>
</tr>
<tr>
<td>Aggregate Record</td>
<td>Name</td>
<td>NA</td>
<td>Employees</td>
</tr>
<tr>
<td>Name</td>
<td>NA</td>
<td>NA</td>
<td>Employee Details</td>
</tr>
</tbody>
</table>

8. Select the Employees Data Group from the navigation tree and select the Employee Details record.

9. Create the following extract attributes for the Employee Details record and select Save.

10. Complete the general fields, as shown in this table:

    | Field Name | Attribute Entry | Attribute Entry | Attribute Entry |
    |------------|-----------------|-----------------|-----------------|
    | Name       | Full Name       | Gender          | Date of Birth   |
    | Start Date | 1/1/00          | 1/1/00          | 1/1/00          |
### 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 data groups, records, and attributes.

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>End Date</td>
<td>12/31/12</td>
<td>12/31/12</td>
</tr>
<tr>
<td>BI Publisher Template</td>
<td>ReportLayout</td>
<td>EFTLayout</td>
</tr>
</tbody>
</table>
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 (payroll flow) 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 submission parameters, 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 (extract process).
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. You can schedule the extract, or run it immediately.
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, click the eyeglasses, and view the report output by selecting the report name.

**Defining an Extract Using the Simplified Interface: Worked Example**

This example topic demonstrates how to create a HCM extract including creating data groups, records, and attributes using the simplified interface. You create an extract definition to capture the details of what you want to extract, the structure in which the data must be extracted and how you want to deliver this data. FAST Bank is a global organization with subsidiaries all over the world. As part of an external reporting requirement, FAST Bank must obtain the department and employee details across the entire company. This information must be sent to a third party in an XML file and to the HR manager with employee details grouped by department as a Headcount Report.

The following table summarizes the key decisions in this scenario:
<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many extracts do I need to create to produce this type of report?</td>
<td>You create one extract definition to define a headcount report.</td>
</tr>
<tr>
<td>What type of extract do I create?</td>
<td>You create a HR Archive extract.</td>
</tr>
<tr>
<td>How many data groups do I need to create?</td>
<td>In this example there are 2 functional groups of information, therefore you create two data groups, one for department and one for employees.</td>
</tr>
</tbody>
</table>
| How many records do I need to create?                                              | You decide the number of records based on the sub-group of attributes within a data group. In this example, you create two records for the department data group:  
  - Department Details  
  - Department Summary  
  You create one record for the employees data group: Employee Details. |
| How many attributes do I need to create?                                           | You decide the number of attributes based on the specific information required for that report. In this example, create the following attributes for the Department Details record:  
  - Department Name  
  - Department Location  
  For the Department Summary record, create the following attributes:  
  - Record Code  
  - Report Date  
  - Employee Count  
  For the Employees Details record, create the following attributes:  
  - Full Name  
  - Gender  
  - Date of Birth  
  - Salary  
  - Bonus  
  - Tax Rate |
Do I need to create any fast formulas?

<table>
<thead>
<tr>
<th>Do I need to create any fast formulas?</th>
<th>You can use fast formulas at the following levels:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Extract Criteria level to determine certain conditions.</td>
<td></td>
</tr>
<tr>
<td>- Extract Rule level to derive attribute values.</td>
<td></td>
</tr>
<tr>
<td>- Extract Advanced Condition level to specify complex conditions.</td>
<td></td>
</tr>
<tr>
<td>- Extract Record level to automatically generate formulas when you use the Generate Formula option.</td>
<td></td>
</tr>
</tbody>
</table>

**Creating an Extract Definition**

1. On the Manage Extract Definitions page click on the Create icon to create a new extract.
   Use the Switch Layout button to open the extract in the Professional interface. Use the Professional interface to create and define HCM extracts without using a drag and drop system. You can perform most of the tasks for defining the extract in the Simplified interface, however to enter an effective date for the extract, you must switch to the Professional interface.

2. 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.

3. 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 Data Group
   - Parameter Group
   - Report Category
   - Request ID
   - Start Date

**Creating Extract Data Groups**

1. Select the Design icon to create the data groups.

2. Select the Create icon or use the HCM Data Objects tree to drag and drop a data group into the local area. A data group represents data that belongs to one or more logical data entities.

3. Using the drag and drop action, the application automatically creates the following information:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Departments</td>
</tr>
</tbody>
</table>
4. Select Save and create another data group with the following information:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Employees</td>
</tr>
<tr>
<td>User Entity</td>
<td>PER_EXT_SEC_ASSIGNMENT_UE</td>
</tr>
<tr>
<td>Root Data Group</td>
<td>No</td>
</tr>
</tbody>
</table>

Creating Extract Data Group Connections

1. Ensure you enter the following details to create the extract data group connections. Data group connections enable you to define the master-detail of parent-child relationship between the entities. For example the Department and Employees data groups are linked with Department ID.

2. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Data Group</td>
<td>Departments</td>
</tr>
<tr>
<td>Parent Data Group Database Item</td>
<td>PER_EXT_ORG_ORGANIZATION_ID</td>
</tr>
<tr>
<td>Data Group Database Item</td>
<td>PER_EXT_ASG_ORG_ID</td>
</tr>
</tbody>
</table>

3. Define the data group criteria for each data group. Data group 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 Department Data Group and ensure it includes the following extract record details. Extract records represent a physical collection of all required fields. If a data group 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 Data Group to identify which data group the application processes next.

2. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Department Summary</th>
<th>Department Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Department Summary</td>
<td>Department Details</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Sequence</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Trailer Record</td>
<td>Header Record</td>
</tr>
<tr>
<td>Process Type</td>
<td>Fast Formula</td>
<td>Fast Formula</td>
</tr>
</tbody>
</table>
3. Save the records and then select the Employees Data Group. Ensure this data group includes the following extract record details.

4. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Employee Details</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Sequence</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Detail Record</td>
</tr>
<tr>
<td>Process Type</td>
<td>Fast Formula</td>
</tr>
</tbody>
</table>

Creating Attributes

1. Select the Departments Details record within the Department Data Group and ensure it includes the following extract attribute details.

2. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Department Name</td>
<td>Department Location</td>
</tr>
<tr>
<td>Type</td>
<td>Database item group</td>
<td>Database item group</td>
</tr>
<tr>
<td>Database Item Group</td>
<td>Organization Name</td>
<td>Organization Location Country</td>
</tr>
</tbody>
</table>

3. Select the Department Summary record and ensure it includes the following extract attribute details.

4. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Record Code</td>
<td>Report Date</td>
<td>Employee Count</td>
</tr>
<tr>
<td>Data Type</td>
<td>Text</td>
<td>Date</td>
<td>Number</td>
</tr>
<tr>
<td>Type</td>
<td>String</td>
<td>Parameter Element</td>
<td>Summary Element</td>
</tr>
<tr>
<td>String Value</td>
<td>999</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Parameter</td>
<td>Effective Date</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Aggregate Function</td>
<td>NA</td>
<td>NA</td>
<td>Count</td>
</tr>
<tr>
<td>Aggregate Record Name</td>
<td>NA</td>
<td>NA</td>
<td>Employees Employee Details</td>
</tr>
</tbody>
</table>

5. Select the Employee Details record within the Employees Data Group and ensure it includes the following extract attribute details.
6. Complete the general fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Full Name</td>
<td>Gender</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Data Type</td>
<td>Text</td>
<td>Text</td>
<td>Date</td>
</tr>
<tr>
<td>Type</td>
<td>Database Item Group</td>
<td>Decoded database item group</td>
<td>Database item group</td>
</tr>
<tr>
<td>Database Item Group</td>
<td>Person Full Name</td>
<td>Person Gender</td>
<td>Person Date of Birth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
<th>Attribute Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Salary</td>
<td>Bonus</td>
<td>Tax rate</td>
</tr>
<tr>
<td>Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>Data Type</td>
<td>Number</td>
<td>Number</td>
<td>Text</td>
</tr>
<tr>
<td>Type</td>
<td>Database item group</td>
<td>Record Calculation</td>
<td>Rule</td>
</tr>
<tr>
<td>Database Item Group</td>
<td>Assignment Salary Amount</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Calculation Expression</td>
<td>NA</td>
<td>Salary * 0.5</td>
<td>NA</td>
</tr>
<tr>
<td>Rule</td>
<td>NA</td>
<td>NA</td>
<td>FAST Bank Tax Rule</td>
</tr>
</tbody>
</table>

**Defining the Delivery Options**

1. Select the Deliver icon to define the delivery options.

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 data groups, records, and attributes.

3. Use the delivery options page 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:
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date</td>
<td>1/1/00</td>
<td>1/1/00</td>
</tr>
<tr>
<td>End Date</td>
<td>12/31/12</td>
<td>12/31/12</td>
</tr>
<tr>
<td>BI Publisher Template</td>
<td>ReportLayout</td>
<td>EFTLayout</td>
</tr>
<tr>
<td>Output Type</td>
<td>PDF</td>
<td>EFT</td>
</tr>
<tr>
<td>Delivery Type</td>
<td>Email</td>
<td>FTP</td>
</tr>
<tr>
<td>Delivery Option Name</td>
<td>Email to HR</td>
<td>FTP to 3rd Party</td>
</tr>
<tr>
<td>Output Name</td>
<td>HeadcountReport</td>
<td>EFTReport</td>
</tr>
</tbody>
</table>

5. Ensure you enter the additional information such as, 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 (payroll flow) 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 submission parameters, 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 (extract process).
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. You can schedule the extract, or run it immediately.
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, click the eyeglasses, and view the report output by selecting the report name.

**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
data groups, 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 attributes 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 data groups, criteria, records, attributes, advanced 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 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.

Data Groups

Extract data groups represent a business area or logical entity, for example person, assignment, or benefits. The application uses this information to retrieve the database item groups. You define one data group as the primary or root data group and this data group is the starting point of the data extraction.

Extract data group connections capture the association details between the current data group and the parent data group. The data group connections form the hierarchical relationship among the data groups.

Extract data group criteria enables you to define a set of filtering conditions the application must perform on an extract data group. 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 data group can have records such as Basic Details, Pay Details, Location Details, and Primary Contact. An extract record is a collection of attributes which you can organize in a required sequence. For example, if a data group has 3 records, then you can specify the sequence in which the application processes the records. You can also select the next data group to identify which data group the application processes next.
**Attributes**

Attributes are the individual fields inside the extract record. An attribute 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 data group definition. In this example, the data group is a container for the logical group of data called Department. Within the Department data group 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 attributes such as Department ID at the bottom.

**Profiles-Related User Entities in HCM Extracts Definitions**

A user entity is a logical entity associated with a data group defined using the HCM Extracts feature, a flexible tool for generating data files and reports. This
This topic describes user entities related to person and job profiles, and the type of data you can extract by using those user entities. You can select these user entities in the application when you define a data group in HCM Extracts. The following table lists user entities related to person and job profiles that you can use to decide the type of data you want to extract.

<table>
<thead>
<tr>
<th>User Entities</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRT_EXT_JOBFAM_WORKFORCE_STRUCTURE_REL_UE</td>
<td>Extracts job family workforce structure relations</td>
</tr>
<tr>
<td>HRT_EXT_JOB_CERTIFICATION_UE</td>
<td>Extracts job certifications</td>
</tr>
<tr>
<td>HRT_EXT_JOB_COMPETENCY_UE</td>
<td>Extracts job competencies</td>
</tr>
<tr>
<td>HRT_EXT_JOB_CRITICALITY_UE</td>
<td>Extracts job criticality data</td>
</tr>
<tr>
<td>HRT_EXT_JOB_DEGREE_UE</td>
<td>Extracts job degrees</td>
</tr>
<tr>
<td>HRT_EXT_JOB_HONOR_UE</td>
<td>Extracts job honors</td>
</tr>
<tr>
<td>HRT_EXT_JOB_LANGUAGE_UE</td>
<td>Extracts job languages</td>
</tr>
<tr>
<td>HRT_EXT_JOB_MEMBERSHIP_UE</td>
<td>Extracts job memberships</td>
</tr>
<tr>
<td>HRT_EXT_JOB_WORKFORCE_STRUCTURE_REL_UE</td>
<td>Extracts job workforce structure relations</td>
</tr>
<tr>
<td>HRT_EXT_JOB_WORK_REQUIREMENT_UE</td>
<td>Extracts job work requirements</td>
</tr>
<tr>
<td>HRT_EXT_LOC_WORKFORCE_STRUCTURE_REL_UE</td>
<td>Extract location workforce structure relations</td>
</tr>
<tr>
<td>HRT_EXT_ORG_WORKFORCE_STRUCTURE_REL_UE</td>
<td>Extract organization workforce structure relations</td>
</tr>
<tr>
<td>HRT_EXT_PERSON_ACCOMPLISHMENT_UE</td>
<td>Extracts person accomplishments</td>
</tr>
<tr>
<td>HRT_EXT_PERSON_ADV_READINESS_UE</td>
<td>Extracts person advancement readiness details</td>
</tr>
<tr>
<td>HRT_EXT_PERSON AREAS_OF_EXPERTISE_UE</td>
<td>Extracts person areas of expertise</td>
</tr>
<tr>
<td>HRT_EXT_PERSON AREAS_OF_INTEREST_UE</td>
<td>Extracts person areas of interest</td>
</tr>
<tr>
<td>HRT_EXT_PERSON AREA_OF_STUDY_UE</td>
<td>Extracts person area of studies</td>
</tr>
<tr>
<td>HRT_EXT_PERSON CAREER_OF_INTEREST_UE</td>
<td>Extracts person career of interests</td>
</tr>
<tr>
<td>HRT_EXT_PERSON CAREER_PREFERENCE_UE</td>
<td>Extracts person career preferences</td>
</tr>
<tr>
<td>HRT_EXT_PERSON CAREER_STATEMENT_UE</td>
<td>Extracts person career statement</td>
</tr>
<tr>
<td>HRT_EXT_PERSON DEGREE_UE</td>
<td>Extracts person degrees</td>
</tr>
<tr>
<td>HRT_EXT_PERSON CERTIFICATION_UE</td>
<td>Extracts person certifications</td>
</tr>
<tr>
<td>HRT_EXT_PERSON COMPETENCY_UE</td>
<td>Extracts person competencies</td>
</tr>
<tr>
<td>HRT_EXT_PERSON CUSTOM_CTYPE_UE</td>
<td>Extracts person custom content type</td>
</tr>
<tr>
<td>HRT_EXT_PERSON EDUCATION_LEVEL_UE</td>
<td>Extracts person education levels</td>
</tr>
<tr>
<td>HRT_EXT_PERSON HONOR_UE</td>
<td>Extracts person honors</td>
</tr>
<tr>
<td>HRT_EXT_PERSON LANGUAGE_UE</td>
<td>Extracts person languages</td>
</tr>
<tr>
<td>HRT_EXT_PERSON POTENTIAL_UE</td>
<td>Extracts person potential</td>
</tr>
<tr>
<td>HRT_EXT_PERSON MEMBERSHIP_UE</td>
<td>Extracts person memberships</td>
</tr>
<tr>
<td>HRT_EXT_PERSON N BOX CELL_ASSIGNMENT_UE</td>
<td>Extracts person performance box chart analytic details</td>
</tr>
<tr>
<td>HRT_EXT_PERSON PERF RATING_UE</td>
<td>Extracts person performance rating</td>
</tr>
<tr>
<td>HRT_EXT_PERSON PREV_EXP_UE</td>
<td>Extracts person previous employment</td>
</tr>
<tr>
<td>HRT_EXT_PERSON RISK_UE</td>
<td>Extracts person risk of loss details</td>
</tr>
<tr>
<td>HRT_EXT_PERSON WORK_REQUIREMENT_UE</td>
<td>Extracts person work requirements details</td>
</tr>
<tr>
<td>HRT_EXT_PERSON SPECIAL_PROJECT_UE</td>
<td>Extracts person special projects</td>
</tr>
</tbody>
</table>
Frequently Used User Entities in HCM Extracts

A user entity is a logical entity associated with a data group defined using HCM extracts. This topic describes user entities related to people and payroll, and describes the type of data you can extract by using those user entities. You select user entities in the application when you define a data group.

The following table lists the most frequently used user entities related to person and payroll that you can use to decide the type of data you want to extract.

<table>
<thead>
<tr>
<th>User Entity Name and Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person (PER_EXT_SEC_PERSON_UE)</td>
<td>Use this user entity to retrieve all persons across the enterprise and all person related attributes.</td>
</tr>
<tr>
<td>Worker (PER_EXT_SEC_ASSIGNMENT_UE)</td>
<td>Use this user entity to retrieve all workers across the enterprise and all person, worker related attributes. For example, relationship, term and assignment details.</td>
</tr>
<tr>
<td>Worker Payroll (PER_EXT_PAY_EMPLOYEES_UE)</td>
<td>Use this user entity to retrieve all workers and their payrolls across the enterprise, all person, worker, payroll related attributes, and element entry data.</td>
</tr>
</tbody>
</table>

FAQs for Define Extracts

**How can I restrict the records to be extracted?**

You can use extract data group criteria to define a set of filtering conditions the application performs on an extract data group. 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.

**What is data group filtering?**

The application uses extract data group filtering to filter data extracted in the data group. You can specify to filter data group as an expression (in popup) or
as fast formula, and you can choose one or both. You can build criteria using the available database items, parameters and operators (conditional and logical). The filter criteria will be more efficient as it gets appended to the User Entity SQL at the time of execution. If you cannot specify the criteria as an expression, then you can place logic inside a fast formula and select here. Fast formulas return values of Y or N to indicate if you must extract the record or not. If both criteria and formula are specified, then both the conditions are applied.

**What’s an exclusion rule?**

An exclusion rule enables you to exclude or override a record that does not suit your requirements with your own record. The extract process does not process excluded records based on the legislative data group.

**What’s a conditional action?**

A conditional action identifies the action to perform, and optionally, a message based on the outcome of a conditional expression or a predefined fast formula. Conditional actions are applied on the extracted data similar to criteria conditions that are applied prior to extraction. Actions and messages are predefined in lookups, and you can add your own messages by creating new values for the lookup.

When a condition is satisfied, you can use this feature to perform certain predefined actions. For example, you can exclude employees that satisfy a condition, such as all employees from a predefined country. You can also configure this feature to raise a warning when an employee’s salary is blank or beyond a specific level.

**What’s a threading database item and what is its connection to the extract data group?**

A threading database item is required for implementing the Changes Only feature. The threading database item is a unique ID in the chosen user entity (UE). Generally, for Pay Employee UE and Assignment UE it would be DBI with ASSIGNMENT%ID. For Person UE, it would be DBI with pattern PERSON %ID. You can declare one threading database item at the root data group or any child data group level. For example, you declare the threading database item from the location where you need changes only.

**How do I create a Changes Only HCM extract?**

You can create a changes only extract run by including the ‘CHANGES_ONLY’ parameter and setting up threading details in the extract definition. A changes only extract enables you to run an extract to find out what data has changed.
after the previous runs. For example, to find out if the job name has changed on a person’s assignment from the previous run. You set up multi-threading database items for a changes only extract for faster processing. The application considers data at a multiple threading level and uses this information to compare the changes. This type of extract can generate incremental data by comparing the previous runs.

You can select from four different modes that provide you with different data outcomes. Select N to include all data in the extract. Select Y to compare this extract run with previous runs and display the data that has changed only. Select Attribute to include elements that have changed or marked as mandatory. Select Attrib_Old to display elements that have changed or marked as mandatory plus the previous value.

**Can I use Oracle Transaction Business Intelligence (OTBI) with HCM Extracts?**

Yes. You have two options:

HCM Extracts can extract the data and produce an output using CSV, XML, or PDF. OTBI can then accept a data source in excel or XML format.

BI Publisher can also accept a data source in excel or XML format. HCM Extracts has integration with BI Publisher.

**What’s an extract type?**

The type of extract you select determines the purpose of the extract. Here are some examples of the different extract types and why you select them. Use the Full Profile type for complete employee and payroll data archives. Use the Payroll Interface type for providing data to third party payroll service providers. Use the Payments type for salary payment method archives. For example, paid though cheque or bank transfer. Use the Benefits Carrier type for providing data to third party benefits service providers. Use the Archive Retrieval type for reports based on permanently archived data. For example, payslip. Use the EOY Archive for end of year archives (HR Payroll, Benefits). Use the HR Archive type for all HR archives, the Payroll Archive for all payroll or payslip archives, and use the Other Payroll Archive for all payroll archives. The type of extract you select also determines the parameters that are automatically generated. For example, if you select the Payroll Interface extract type, then the application creates a changes only parameter, as well as the other parameters.

**How do I create a BI Publisher template for HCM extract?**

You create a BI Publisher template using the Export XSD option in the extract execution tree and saving the file to your local machine. You can then load the downloaded XSD file to the BI Publisher word plug-in using the XML Schema option. If you require a report in a specific format, then you can create a template and save it by arranging the fields in the required format. Otherwise, you can create a default RTF template using the All Fields option.
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 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 and the batch loader are 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.

**Important**

If you enable employees or other roles to create banks and branches, provide guidance to use unique names and follow appropriate naming conventions. If enabled, employees can create bank and branches using the Manage Personal Payment Methods task.

---

**Payroll Setup Tasks 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 work 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 Global 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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Banks</td>
<td>Create the bank information required for the payment sources used in your payroll transactions.</td>
</tr>
<tr>
<td>Manage Bank Branches</td>
<td>Create the bank branch information required for the payment sources used in your payroll transactions.</td>
</tr>
<tr>
<td>Manage Bank Accounts</td>
<td>Create the bank account information required for the payment sources used in your payroll transactions.</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Bank Statement Transaction Codes</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Cash Transaction Type Mapping</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Bank Statement Reconciliation Tolerance Rules</td>
<td>Create tolerance rules based on date, amount, or percentage that prevent or warn you when reconciliation exceeds a defined tolerance.</td>
</tr>
<tr>
<td>Manage Bank Statement Reconciliation Rule Sets</td>
<td>Assign a group of matching rules and tolerance rules to a bank account for reconciling bank statement lines with transactions.</td>
</tr>
<tr>
<td>Manage Bank Accounts</td>
<td>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.</td>
</tr>
</tbody>
</table>
Oracle Taleo Recruiting Service and HCM Integration

Oracle Taleo Recruiting Cloud Service and HCM: How They Work Together

The integration between Oracle Taleo Recruiting Cloud Service and HCM facilitates seamless flow of the recruitment process from creating a job requisition to hiring a worker.
The Integration Process
The integration between Oracle Taleo Recruiting Cloud Service and HCM involves the following tasks:

1. Performed in HCM:
   - Exporting work structures and worker data to Oracle Taleo Recruiting Cloud Service.

2. Performed in Oracle Taleo Recruiting Cloud Service:
   - Creating a job requisition using the data imported from HCM.
   - Selecting candidates for a job requisition.
   - Hiring a candidate.

Note
When integration is in progress, the Taleo application is automatically put into Maintenance Mode. In Maintenance Mode, the application is inactive. Recruiters and hiring managers in the Recruiting Center as well as candidates in Career Sections are logged out automatically. The application displays a message to users indicating that the application is in Maintenance Mode. It is therefore very important to carefully plan the scheduling and execution of any integration to minimize the impacts.

3. Performed in HCM:
   - Importing candidate data from Oracle Taleo Recruiting Cloud Service.
   - Creating pending worker.
   - Converting pending worker to employee.
   - Exporting changed data to Oracle Taleo Recruiting Cloud Service.

Importing Data From Oracle Taleo Recruiting Cloud Service: Explained

Once a candidate is selected in Oracle Taleo Recruiting Cloud Service, you must import the candidate data to HCM to facilitate hiring the candidate as an employee or contingent worker in HCM.

Imported Data
The data that is imported from Oracle Taleo Recruiting Cloud Service to HCM includes the following.

- Candidate data, including
  - Person and employment data
  - Compensation and payroll data
• Education, certification, and previous experience details, which are captured as a part of HCM Talent
• Requisition data

Scheduled Processes
You can import data from Oracle Taleo Recruiting Cloud Service to HCM using the scheduled process Import Oracle Taleo Recruiting Cloud Service Data. You can run this process manually or schedule it to run at regular intervals (for example, weekly at a specified time). The likely volume and frequency of hiring persons in your enterprise will determine how often you run this process.

After you run the import process, you can view the selected candidates in the New Person Overview page. The Selected Candidates page displays a list of candidates ready to be added as pending workers. Once you add a candidate as a pending worker, the candidate appears in the Pending Workers list. You can then covert the pending worker to an employee or a contingent worker. The imported person, payroll, compensation, and talent (education, certification, and previous experience) details, appear by default, in the Convert Pending Worker flow.

Exporting Data to Oracle Taleo Recruiting Cloud Service: Explained

Oracle Taleo Recruiting Cloud Service uses HCM work structures and worker data to create and process job requisitions. You can export this data from HCM to Oracle Taleo Recruiting Cloud Service.

HCM and Oracle Taleo Recruiting Cloud Service Mapping
The following table lists the business objects that are exported from HCM and the corresponding business objects that they are mapped to in Oracle Taleo Recruiting Cloud Service

<table>
<thead>
<tr>
<th>HCM</th>
<th>Oracle Taleo Recruiting Cloud Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departments</td>
<td>Departments</td>
</tr>
<tr>
<td>Jobs</td>
<td>Requisition Templates</td>
</tr>
<tr>
<td>Business Units</td>
<td>Organizations</td>
</tr>
<tr>
<td>Users</td>
<td>Users</td>
</tr>
<tr>
<td>Employees</td>
<td>Candidates</td>
</tr>
<tr>
<td>Locations</td>
<td>Locations</td>
</tr>
<tr>
<td>Positions</td>
<td>Large User Data Selection, used in offer</td>
</tr>
<tr>
<td>Grades</td>
<td>Large User Data Selection, used in requisition</td>
</tr>
<tr>
<td>Legal Employers</td>
<td>Large User Data Selection, used in requisition</td>
</tr>
<tr>
<td>Job Families</td>
<td>Job Fields</td>
</tr>
</tbody>
</table>

Exporting Employees and Users

As a part of the integration, HCM exports employees and users such as Managers, Hiring Managers and Recruiters, who have the privilege to
create requisitions in Oracle Taleo Recruiting Cloud Service. From the HCM perspective, user and employee data are the same, and use the same data mapping. The employee or user creation process relies on certain default user types provisioned in Taleo. The following table lists the users exported from HCM, and the user types they are mapped to in Oracle Taleo Recruiting Cloud Service:

<table>
<thead>
<tr>
<th>(Fusion) User</th>
<th>(Taleo) User Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Employee</td>
</tr>
<tr>
<td>Manager or Hiring Manager</td>
<td>Recruiting - PowerManager</td>
</tr>
<tr>
<td>Recruiter</td>
<td>Recruiting - PowerRecruiter</td>
</tr>
</tbody>
</table>

**Note**

The later versions of Taleo (version 13B and later) include new default user types, which may not comply with the above user-mapping definition. In this case, the Taleo Application Administrator can manually configure the user groups for all users imported from Fusion HCM. For more information about the new default user types and configuring user types in Taleo, see the Fusion-Taleo Integration Taleo Configuration Guide.

**Scheduled Processes**

The following scheduled processes enable you to export data from HCM to Oracle Taleo Recruiting Cloud Service:

- **Export All Oracle Taleo Recruiting Cloud Service Data**
  
  Use this scheduled process to export all work structures and worker data from HCM to Oracle Taleo Recruiting Cloud Service. You may need to run this process typically only once, in the beginning, to send all HCM data to Oracle Taleo Recruiting Cloud Service to enable creation of job requisitions.

- **Export Changed Oracle Taleo Recruiting Cloud Service Data**
  
  Use this scheduled process to export any changed work structures and worker data from HCM to Oracle Taleo Recruiting Cloud Service. You can run this process manually or schedule it to run at regular intervals (for example, weekly at a specified time). The likely volume and frequency of hiring persons in your enterprise will determine how often you run this process.

**FAQs for Oracle Taleo Recruiting Service and HCM Integration**

**What are Large User Defined Selections (LUDS)?**

Certain business objects in HCM (for example, legal employers, jobs, and positions) do not map directly to any business objects in Oracle Taleo Recruiting
Service, when exporting data from HCM to Oracle Taleo Recruiting Service. Such business objects are mapped to Large User Defined Selections (LUDS) instead. LUDS are custom, user-defined fields in Oracle Taleo Recruiting Service, specifically configured for the integration with HCM.
Define Payroll: Overview

The Define Payroll task list contains the tasks required to set up earnings and deductions, payment methods, flow patterns, and other definitions required for payroll processing. All of the tasks are available in the Setup and Maintenance work area. The tasks you may need to revisit in subsequent projects after initial implementation are also available in the Payroll Calculation work area.

**Note**
If you’re not using Oracle Fusion Global Payroll, use the Define Elements, Balances, and Formulas task list instead to create your earnings, deductions, and other payroll data. That task list contains a smaller set of tasks, which is sufficient if you are creating elements for non-payroll purposes, such as compensation and HR management only, or for transferring data to a third-party payroll provider.

The Define Payroll task list is included in the Workforce Deployment offering. This offering contains other tasks that must be completed first.

**Important**
Make sure you complete the prerequisite tasks for payroll before performing the tasks described here. Also, after creating payroll definitions and payroll flow patterns, make sure you perform the tasks in the Define Security for Payroll task list to set up data security on your new definitions.

**Define Payroll Business Definitions**
Create any lookup codes, value sets, and descriptive flexfields that you need to extend the fields and lists of values available on pages that support these features. Use profile option values to specify the information to display in the payroll employment hierarchy for workers on the statement of earnings and other pages.

**Define Pay Frequency**
Create at least one consolidation group for each legislative data group. Create at least one payroll definition for each payroll frequency, such as weekly or semimonthly, within a legislative data group. Review the predefined time definitions and run types, and create new ones if required.

**Define Fast Formulas**
Create any formulas you require for validating user entries into element input values and user-defined tables, or for configuring compensation, benefit,
and accrual plan rules. Payroll formulas are created for you when you create
elements for earnings and deductions. You shouldn’t normally need to create
your own payroll formulas, but you can create skip rule formulas or proration
formulas, if required.

Define Balance Definitions
Most of the balances you require are predefined or created automatically when
you create new elements. You can edit the definition of these generated balances.
You can create additional balances to include in reports and processes, such as
HCM extracts. You can also create reports to identify balance exceptions after
payroll processing.
When you migrate payroll data from another system, you must set initial balance
values. You load the values into batch views, typically using the payroll batch
loader, and then submit the Load Initial Balances process from the Payroll
Calculation work area.

Define Earning and Deduction Definitions
Use the Manage Elements task to create earnings and deductions. Create each
element and then edit it to create at least one element eligibility record. You
can also create additional input values and balance feeds, if required. You must
create eligibility records for predefined elements, as well as for the elements you
create.

Important
Make sure you set product usage to Payroll using the Manage Payroll Product
Usage task before you create elements for payroll processing, to ensure the
elements are created using the appropriate element templates.

Creating some elements also creates component groups, calculation value
definitions, and other calculation information. Use the relevant tasks in this
task list to review these definitions. You can enter calculation values for some
components.

Some earnings and deductions reference rate definitions. You can review
predefined rate definitions and create new ones, if required.

Define Events
Review payroll event groups containing events that trigger proration or
retroactive processing of elements. You can create new event groups if required.

Define Payment Methods
Create payment methods and sources for paying workers and third parties.
Before creating payment methods, create any required source banks, branches,
accounts and third-party organizations and people.

If you plan to reconcile bank statements with payment transactions using Oracle
Fusion Cash Management, you must set up the following information in Cash
Management: transaction codes that map to the payment method transaction
codes, and reconciliation Differences account and reconciliation rules.

Define Payroll Costing
You see this task list in an implementation project if the Workforce Deployment
offering is configured to include the Payroll Costing feature choice. Configure
the cost allocation key flexfield for each legislative data group. Then set up account information at each level you are using to manage cost results, such as payroll, element, department, and job level. You can also configure the subledger accounting rules.

**Define Object Groups**

You can create object groups to specify subsets of elements or payroll relationships to include in reports or processes. Element groups are also used for cost distribution.

**Define Payroll Flow Patterns**

Review the predefined payroll flow patterns that define the sequence of manual and automated tasks performed during the payroll cycle. Create additional patterns, if required.

Create payroll process configuration groups to specify the action parameters to use when you run payroll processes. You must specify a default group in the Process Configuration Group profile option, but you can create additional groups, for example to switch on logging parameters when you are troubleshooting processes.

**Prerequisite Tasks for Payroll Setup: Overview**

The Define Payroll task list in the Setup and Maintenance work area contains most of the setup tasks required for payroll processing. However, first you must complete the required common application configuration tasks. Some of these tasks may have been done already, because they are required for other HCM applications. However, you may need to revisit some tasks to address payroll-specific requirements, such as creating tax reporting units.

The prerequisite tasks are in the following task lists:

- Define Common Applications Configuration for Human Capital Management
- Define Payroll Legislations

**Define Common Applications Configuration for Human Capital Management**

Complete tasks in the task lists shown in the following table to set up geographies and enterprise structures, and to indicate whether you are using Oracle Fusion Global Payroll or Oracle Fusion Global Payroll Interface for each legislation.

<table>
<thead>
<tr>
<th>Task List</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define Geographies for HCM</td>
<td>Verify predefined geographies and load any additionally required local geographies.</td>
</tr>
</tbody>
</table>
| Define Legal Jurisdictions and Authorities for HCM | • Create a legal jurisdiction if not already created or predefined for your legislation.  
• Create a legal authority for each government body you interact with.  
• Create addresses for legal entities and legal authorities. |
| Define Legal Entities for HCM | • Create a legislative data group for each country you operate in, to partition your payroll data.  
• Create at least one legal entity designated as a payroll statutory unit for each legislative data group.  
• Associate each payroll statutory unit with a legislative data group.  
• Optionally, create calculation cards for statutory deductions for each payroll statutory unit, if supported by the legislation. |
| Define Legal Reporting Units for HCM | • Create any additional tax reporting units that you need.  
• Optionally, create calculation cards for statutory deductions for each tax reporting unit, if supported by the legislation. |
| Define Business Units for HCM | Create business units that you use to associate other objects |
| Define Chart of Accounts for Enterprise Structures | Create charts of accounts, ledgers, and accounting calendars. When you create a bank for a payment source, you must select a legal entity that is assigned to a ledger for the associated legislative data group. These financial components are also required for payroll costing. |
| Define Accounting Configurations for HCM |  |
| Define Payroll Product Usage | Review and update payroll product selections for legislations. These settings control the availability of payroll-related features, such as element templates. |

**Define Payroll Legislations**  
Complete the task in this task list if you are implementing Oracle Fusion Global Payroll in a country for which Oracle has not provided the payroll legislative rules.

<table>
<thead>
<tr>
<th>Task List</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define Payroll Legislations</td>
<td>Configure legislative rules including element classifications, payment types, component groups, and balance dimensions for legislations you plan to use that are not predefined by Oracle.</td>
</tr>
</tbody>
</table>

**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
- Payroll employment model
- Payroll calculation at the payroll relationship level

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 to be processed in payroll runs.

Note
There is no direct association between payroll relationships and work relationships.

Payroll Employment Model
The structure of the payroll employment model 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 employment 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.

- **Assignment**
  
  Because the assignment is the lowest level of the payroll employment model, elements assigned at this level usually vary from one assignment to another or are specifically for a single assignment. Elements at the Assignment level are typically used for monetary terms and conditions, such as overtime rules, rates, union dues, 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.

**Payroll Calculation**

Payroll relationships represent the association between a person and the payroll statutory unit. Payroll processing always 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.

**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 and available profile values, at the site level for each level of the payroll employment hierarchy.

**Payroll relationship level**

<table>
<thead>
<tr>
<th>Profile Option Codes</th>
<th>Profile Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAY_EMP_HIERARCHY_REL_DESC_1</td>
<td>Payroll</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_REL_DESC_2</td>
<td>Relationship</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_REL_DESC_3</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Payroll Statutory</td>
</tr>
<tr>
<td></td>
<td>Unit Name</td>
</tr>
<tr>
<td></td>
<td>Payroll Relationship Type</td>
</tr>
</tbody>
</table>

**Employment terms level**

<table>
<thead>
<tr>
<th>Profile Option Codes</th>
<th>Profile Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAY_EMP_HIERARCHY_TERM_DESC_1</td>
<td>Employment Category</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_TERM_DESC_2</td>
<td>Legal Employer Name</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_TERM_DESC_3</td>
<td>Grade Name</td>
</tr>
<tr>
<td></td>
<td>Job Name</td>
</tr>
<tr>
<td></td>
<td>Position Name</td>
</tr>
<tr>
<td></td>
<td>Payroll Name</td>
</tr>
<tr>
<td></td>
<td>Location Name</td>
</tr>
</tbody>
</table>
### 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

---

<table>
<thead>
<tr>
<th>Profile Option Codes</th>
<th>Profile Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAY_EMP_HIERARCHY_ASG_DESC_1</td>
<td>Assignment Name</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_ASG_DESC_2</td>
<td>Assignment Number</td>
</tr>
<tr>
<td>PAY_EMP_HIERARCHY_ASG_DESC_3</td>
<td>Employment Category</td>
</tr>
<tr>
<td></td>
<td>Grade Name</td>
</tr>
<tr>
<td></td>
<td>Job Name</td>
</tr>
<tr>
<td></td>
<td>Legal Employer Name</td>
</tr>
<tr>
<td></td>
<td>Location Name</td>
</tr>
<tr>
<td></td>
<td>Position Name</td>
</tr>
</tbody>
</table>
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.

**Note**

You can extend the payroll calendar by increments of five or fewer years. 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.

Note

For payroll definitions using the semimonthly payroll period type, the first period end date is normally the 15th of the month or the last date of the month. If you use a different first period end date, the application calculates payroll periods so that the two payroll periods within the same month are 15 days apart. The number of days in payroll periods that contain the last day of the month will vary based on the number of days in the month.

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.

Note
The application generates the calendar of payroll periods in increments of five or fewer years. For example, if you want a 12-year calendar of payroll periods, you first enter 5 years and submit your changes. Then you edit the payroll definition twice, first setting the number of years to 10, and then setting the number of years to 12.

**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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutoff Date</td>
<td>Final date that payroll information can be entered for the payroll period.</td>
</tr>
<tr>
<td>Payslip Availability Date</td>
<td>Date on which the payslip is available for viewing.</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>Date used by payroll calculation processes to retrieve effective values such as employee details. The process date, if provided when submitting a payroll process, overrides this value.</td>
</tr>
<tr>
<td>Date Earned</td>
<td>Date on which element entries are added to the payroll run.</td>
</tr>
<tr>
<td>Date Paid</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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 cutoff 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, 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 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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which consolidation group should be used?</td>
<td>User-defined consolidation group:</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Group</td>
</tr>
<tr>
<td>What is the legislative data group for the consolidation group?</td>
<td>User-defined legislative data group:</td>
</tr>
<tr>
<td></td>
<td>InFusion US LDG</td>
</tr>
<tr>
<td>What are the payroll periods to use?</td>
<td>Predefined payroll period types:</td>
</tr>
<tr>
<td></td>
<td>Semimonthly</td>
</tr>
<tr>
<td></td>
<td>Monthly (Calendar)</td>
</tr>
<tr>
<td>What are the names of the new payroll definitions?</td>
<td>InFusion US Emp Semimonthly</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Monthly</td>
</tr>
<tr>
<td>What is the name of the organization payment method to use for all employees?</td>
<td>User-defined payment methods:</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Check</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp EFT</td>
</tr>
<tr>
<td>What are the reporting names to be used as a basis for reports, such as extracted data for a third-party payroll provider?</td>
<td>InFusion US Semimonthly</td>
</tr>
<tr>
<td></td>
<td>InFusion US Monthly</td>
</tr>
</tbody>
</table>

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 generate payroll time periods covering five 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**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Semimonthly Value</th>
<th>Monthly Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>InFusion US Emp Semimonthly</td>
<td>InFusion US Emp Monthly</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>InFusion US Semimonthly</td>
<td>InFusion US Monthly</td>
</tr>
<tr>
<td>Consolidation Group</td>
<td>InFusion US Emp Group</td>
<td>InFusion US Emp Group</td>
</tr>
<tr>
<td>Period Type</td>
<td>Semimonthly</td>
<td>Monthly (Calendar)</td>
</tr>
<tr>
<td>First Period End Date</td>
<td>6/15/12</td>
<td>6/30/12</td>
</tr>
<tr>
<td>Default Payment Method</td>
<td>InFusion US Emp EFT</td>
<td>InFusion US Emp Check</td>
</tr>
</tbody>
</table>

**Note**

If the first period end date is set to a date that is neither the 15th nor the end of the month, the application generates payroll periods within the same month that are exactly 15 days apart. The number of days in payroll periods that contain the last day of the month varies based on the number of days in the month.

6. On the Payroll Offsets page, in the Number of Years field, enter 5.

**Note**
The application generates the calendar of payroll periods in increments of 5 or fewer years. For example, if you want a 12-year calendar of payroll periods, you first enter 5 years and submit your changes. Then you edit the payroll definition twice, first setting the number of years to 10, and then setting the number of years to 12.

7. For the semimonthly payroll, use dynamic variables to define offsets as shown in this table, and then click Next.

<table>
<thead>
<tr>
<th>Field</th>
<th>Falls Value</th>
<th>Day Type Value</th>
<th>Offset Value</th>
<th>Base Date Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutoff Date</td>
<td>5</td>
<td>Work Days</td>
<td>Before</td>
<td>Period End Date</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>3</td>
<td>Work Days</td>
<td>Before</td>
<td>Period End Date</td>
</tr>
</tbody>
</table>

8. For the monthly payroll, use fixed dates to define offsets as shown in this table, and then click Next.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Date</td>
<td>Yes</td>
</tr>
<tr>
<td>Cutoff Date</td>
<td>6/25/12</td>
</tr>
<tr>
<td>Date Earned</td>
<td>6/30/12</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>6/27/12</td>
</tr>
<tr>
<td>Date Paid</td>
<td>6/30/12</td>
</tr>
</tbody>
</table>

9. On the Payroll Calendar page, adjust payroll days to account for a bank holiday, as shown in this table.

<table>
<thead>
<tr>
<th>Column</th>
<th>Semimonthly Value</th>
<th>Monthly Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Run Date</td>
<td>Old Value: 11/28/13</td>
<td>Old Value: 5/27/13</td>
</tr>
</tbody>
</table>

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.

Resulting User-Defined Table Components

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 date 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.
Resulting User-Defined Table Components

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 date 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

Each formula usage corresponds to one or more formula types, requiring specific formula inputs and outputs. These requirements are explained in separate chapters of the Oracle Fusion Fast Formula Guide.

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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the formula for a specific legislative data group?</td>
<td>No, this is a global formula that can be used by any legislative data group.</td>
</tr>
<tr>
<td>What is the formula type for this formula?</td>
<td>Range of Scheduled Hours</td>
</tr>
<tr>
<td>Are there any contexts used in this formula?</td>
<td>No</td>
</tr>
<tr>
<td>Are there any database item defaults?</td>
<td>Yes, ASG_JOB</td>
</tr>
<tr>
<td>Are there any input value defaults?</td>
<td>No</td>
</tr>
<tr>
<td>What are the return values?</td>
<td>MIN_HOURS, MAX_HOURS, FREQUENCY</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Name</td>
<td>Manager Range of Scheduled Hours</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Range of Scheduled Hours</td>
</tr>
<tr>
<td>Description</td>
<td>Manager's Range of Hours</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>1-Jan-2010</td>
</tr>
</tbody>
</table>

4. Click Continue.
5. Enter the following formula details in the Formula Text section:

```plaintext
/* 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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the formula for a specific legislative data group?</td>
<td>Yes, InVision</td>
</tr>
<tr>
<td>What is the formula type for this formula?</td>
<td>Payroll Relationship Group</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Name</td>
<td>Executive Payroll Relationship Group</td>
</tr>
<tr>
<td>Type</td>
<td>Payroll Relationship Group</td>
</tr>
<tr>
<td>Description</td>
<td>Executive Workers</td>
</tr>
<tr>
<td>Legislative Data Group</td>
<td>Vision LDG</td>
</tr>
<tr>
<td>Effective As-of Date</td>
<td>1-Jan-2010</td>
</tr>
</tbody>
</table>

4. Click Continue.
5. In the Formula Details section, click Add After to add a row to enter the fields in this table.
<table>
<thead>
<tr>
<th>Conjunction</th>
<th>Database Item Name</th>
<th>Data Type</th>
<th>Operand</th>
<th>Literal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF</td>
<td>DEPARTMENT</td>
<td>Character</td>
<td>=</td>
<td>'EXECT_10000'</td>
</tr>
<tr>
<td>Then</td>
<td>SELECT_EMP</td>
<td>Character</td>
<td>=</td>
<td>'YES'</td>
</tr>
<tr>
<td>ELSE</td>
<td>SELECT_EMP</td>
<td>Character</td>
<td>=</td>
<td>'NO'</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Formula Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax Error</td>
<td>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.</td>
</tr>
<tr>
<td>Incorrect Statement Order</td>
<td><code>ALIAS</code>, <code>DEFAULT</code>, or <code>INPUT</code> statements come after other statements.</td>
</tr>
<tr>
<td>Misuse of ASSIGNMENT Statement</td>
<td>Occurs when any of these conditions occurs:</td>
</tr>
<tr>
<td></td>
<td>• An <code>ASSIGNMENT</code> assigns a value to a database item.</td>
</tr>
<tr>
<td></td>
<td>• A context is assigned a value externally to a <code>CHANGE-CONTEXTS</code> statement.</td>
</tr>
<tr>
<td></td>
<td>• A non-context variable is assigned a value within a <code>CHANGE-CONTEXTS</code> statement.</td>
</tr>
<tr>
<td>Misuse of ALIAS Statement</td>
<td>An <code>ALIAS</code> statement may only be used for a database item.</td>
</tr>
<tr>
<td>Missing DEFAULT Statement</td>
<td>A database item with defaulting specified must have a <code>DEFAULT</code> statement.</td>
</tr>
<tr>
<td>Misuse of DEFAULT Statement</td>
<td>A <code>DEFAULT</code> statement is specified for a variable other than an input or database item.</td>
</tr>
<tr>
<td>Uninitialized Variable</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Formula Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninitialized Variable</td>
<td>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.</td>
</tr>
<tr>
<td>Divide by Zero</td>
<td>Raised when a numeric value is divided by zero.</td>
</tr>
<tr>
<td>No Data Found</td>
<td>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.</td>
</tr>
<tr>
<td>Error Description</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Too Many Rows</td>
<td>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.</td>
</tr>
<tr>
<td>NULL Data Found</td>
<td>Raised when a database item unexpectedly returns a NULL data value. If the database item can return a NULL value then defaulting is allowed.</td>
</tr>
<tr>
<td>Value Exceeded Allowable Range</td>
<td>Raised for a variety of reasons, such as exceeding the maximum allowable length of a string.</td>
</tr>
<tr>
<td>Invalid Number</td>
<td>Raised when an attempt is made to convert a non numeric string to a number.</td>
</tr>
<tr>
<td>User Defined Function Error</td>
<td>Raised from within a formula function. The error message text is output as part of the formula error message.</td>
</tr>
<tr>
<td>External Function Call Error</td>
<td>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.</td>
</tr>
<tr>
<td>Function Returned NULL Value</td>
<td>A formula function returned a NULL value.</td>
</tr>
<tr>
<td>Too Many Iterations</td>
<td>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.</td>
</tr>
<tr>
<td>Array Data Value Not Set</td>
<td>The formula attempted to access an array index that has no data value. This is an error in the formula code.</td>
</tr>
<tr>
<td>Invalid Type Parameter for WSA_EXISTS</td>
<td>An invalid data type was specified in the WSA_EXISTS call.</td>
</tr>
<tr>
<td>Incorrect Data Type For Stored Item</td>
<td>When retrieving an item using WSA_GET, the items actual data type does not match that of the stored item. This is an error within the calling formula.</td>
</tr>
<tr>
<td>Called Formula Not Found</td>
<td>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.</td>
</tr>
<tr>
<td>Recursive Formula Call</td>
<td>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.</td>
</tr>
<tr>
<td>Input Has Different Types In Called and Calling Formulas</td>
<td>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.</td>
</tr>
<tr>
<td>Output Has Different Types In Called and Calling Formulas</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

You can use the batch loader from the Payroll Administration work area or Data Exchange work area to create multiple balance definitions at the same time.

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 sub classifications. For example, if you use the Supplemental Earnings primary classification as a balance feed, you cannot also use any secondary or sub classification that are children of Supplemental Earnings. Also, you cannot use both secondary classifications and sub classifications 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.

• Have an eligibility record associated with it, with an early effective start date.

**Batch Views**

Populate the batch views with the balance values for the initialization date. You can use the Payroll batch loader workbook, or populate the batch directly using the API in the PAY_BALANCE_BATCH_LINES_PKG API package. You can download the batch loader workbook in the Payroll Administration work area.

The views are:

• PAY_BALANCE_BATCH_HEADER

• PAY_BALANCE_BATCH_LINES

**Important**

The PAY_BALANCE_BATCH_LINES view has a complex definition and cannot be directly inserted into. You must use the batch loader workbook or API.

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.

• Every line must include a value for payroll relationship number. If the line is initializing a terms-level balance, you must also enter a term number. If the line is initializing an assignment-level balance, you must also enter a term number and an assignment number.

**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.

<table>
<thead>
<tr>
<th>Defined Balance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total_Earnings_PTD</td>
<td>100</td>
</tr>
<tr>
<td>Total_Earnings_QTD</td>
<td>250</td>
</tr>
<tr>
<td>Total_Earnings_YTD</td>
<td>500</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Adjustment Date</th>
<th>Adjustment Value</th>
<th>Balances Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 June</td>
<td>100</td>
<td>Total_Earnings_PTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_QTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_YTD</td>
</tr>
<tr>
<td>1 April</td>
<td>150</td>
<td>Total_Earnings_QTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_YTD</td>
</tr>
<tr>
<td>1 Jan</td>
<td>250</td>
<td>Total_Earnings_YTD</td>
</tr>
</tbody>
</table>

**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 Payroll batch loader workbook 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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAYROLL_RELATIONSHIP_ID + PAYROLL_RELATIONSHIP_NUMBER</td>
<td>Identify the payroll relationship for this balance value.</td>
</tr>
<tr>
<td>BALANCE_TYPE_ID + BALANCE_NAME</td>
<td>Identify the balance for this balance value.</td>
</tr>
<tr>
<td>BALANCE_DIMENSION_ID + DIMENSION_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>VALUE</td>
<td>Identify the numerical value of the balance on the upload date.</td>
</tr>
<tr>
<td>UPLOAD_DATE</td>
<td>Identify the date of the balance value. This date must be on or before the upload date for the batch header.</td>
</tr>
<tr>
<td>PAYROLL_ID + PAYROLL_NAME</td>
<td>Identify the context required for evaluating a balance value, even though it may not be a context for the dimension.</td>
</tr>
</tbody>
</table>

**Core Context**

The core contexts shown in the following table must be populated if the balance dimension expects a value for this context.

<table>
<thead>
<tr>
<th>Column</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAYROLL_TERM_ID + TERM_NUMBER</td>
<td>Identify the payroll terms 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.</td>
</tr>
<tr>
<td>PAYROLL_ASSIGNMENT_ID + ASSIGNMENT_NUMBER</td>
<td>Identify the payroll assignment for this balance value, if required.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_ID + LEGAL_EMPLOYER_NAME</td>
<td></td>
</tr>
<tr>
<td>TAX_UNIT_ID + TAX_UNIT_NAME</td>
<td></td>
</tr>
<tr>
<td>AREA1 + AREA2 + AREA3 + AREA4</td>
<td>Identify state and country code information. In Oracle E-Business Suite these items were STATE_CODE, COUNTY_CODE and so on.</td>
</tr>
</tbody>
</table>
Identify the ID associated with the payroll terms. If the deduction card is the calculation breakdown, enter the PAY_DIR_CARDS_F.DIR_CARD_ID. If the deduction component is the calculation breakdown, enter the PAY_DIR_CARD_COMPONENTS_F.DIR_CARD_COMP_ID.

### 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.

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 Balance Exceptions

**Balance Exceptions: Examples**

Balance exceptions define the criteria that you want to use in Balance Exception reports to identify overpayments, underpayments, and trends. This information can help detect the balance adjustments needed to correct payments and identify people in your organization who are leading in specific areas such as sales. The following examples illustrate two of the different types of balance exceptions that you may want to include in your Balance Exception reports.

**Tracking Increases in Commissions**

InFusion US plans to train incoming sales staff on productivity techniques. To identify exceptional sales staff in the organization, you can run a report that lists workers whose commissions increased by 25 percent from the previous period. To find out who the sales leaders are, set up a balance exception using the values described in the following table.
### Tracking Gross Earnings

Before InFusion US certifies its current payroll run, the payroll manager wants to know if gross payments are in line with the previous payroll run, which verified the established levels of earnings that it wants to maintain for the remainder of the quarter. These entries are reviewed for reasonableness. The table below explains how to set up a balance exception to find out if gross earnings exceed 10 percent compared to the previous period:

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Exception Name</td>
<td>Commission Increases Over 25 Percent</td>
</tr>
<tr>
<td>Comparison Value</td>
<td>1</td>
</tr>
<tr>
<td>Comparison Type</td>
<td>Previous period</td>
</tr>
<tr>
<td>Variance Type</td>
<td>Percent</td>
</tr>
<tr>
<td>Balance Name</td>
<td>Commissions</td>
</tr>
<tr>
<td>Variance Operator</td>
<td>Greater than</td>
</tr>
<tr>
<td>Dimension Name</td>
<td>Relationship Period to Date</td>
</tr>
<tr>
<td>Variance Value</td>
<td>25</td>
</tr>
</tbody>
</table>

### Creating a Balance Exception Report: Worked Example

This example demonstrates how to create and run a balance exception report. The report compares the total payments you made to your employee population for the current payroll period with the payments that were made to your employee population in the previous payroll period.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What legislative data group should I use?</td>
<td>InFusion US</td>
</tr>
<tr>
<td>Which balance type should be used?</td>
<td>Net Pay</td>
</tr>
<tr>
<td>What period of time should the balances be compared to?</td>
<td>Previous period</td>
</tr>
<tr>
<td>How many periods do you want to compare the net pay balances to?</td>
<td>1</td>
</tr>
</tbody>
</table>
Creating a balance exception report includes the creation of a balance exception, the creation of the report, and then running the report.

Creating a Balance Exception

To derive net pay amounts for the previous period:

1. Open the Payroll Calculation work area, and then click **Manage Balance Exceptions**.
2. Click **Create**.
3. Select the InFusion US legislative data group and click **OK**.
4. Complete the fields as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Exception Name</td>
<td>Compare Net Payment Amounts to the Previous Period</td>
</tr>
<tr>
<td>Balance Name</td>
<td>Net Payment</td>
</tr>
<tr>
<td>Dimension Name</td>
<td>Relationship Period to Date</td>
</tr>
<tr>
<td>Comparison Type</td>
<td>Previous period</td>
</tr>
<tr>
<td>Comparison Value</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note*
For comparison types that begin with Previous, the application enters 1 as the default value and makes it read only.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance Type</td>
<td>Percent</td>
</tr>
<tr>
<td>Variance Operator</td>
<td>Greater than</td>
</tr>
<tr>
<td>Variance Value</td>
<td>10</td>
</tr>
</tbody>
</table>

5. Click **Save** and then click **Submit**.

Creating a Balance Exception Report

1. In the Tasks pane, click **Manage Balance Exceptions and Reports**.
2. Click **Create**.
3. Select the InFusion US legislative data group and click **OK**.
4. Complete the fields as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exception Report Name</td>
<td>Compare Net Payment Amounts to the Previous Period</td>
</tr>
<tr>
<td>Consolidation Group</td>
<td>InFusion US Weekly</td>
</tr>
<tr>
<td>Payroll</td>
<td>InFusion US Weekly Payroll</td>
</tr>
</tbody>
</table>

5. Click **Add**.
6. Select the **Compare Net Payment Amounts to the Previous Period** balance exception name and then click **OK**.

7. Click **Save** and then click **Submit**.

**Running the Balance Exception Report**

1. In the Tasks pane, click **Submit a Process or Report**.

2. Select the InFusion US legislative data group.

3. Select the Run Balance Exception Report flow pattern and then click **Next**.

4. Complete the fields as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Flow</td>
<td>InFusion Weekly Balance Report</td>
</tr>
<tr>
<td>Process End Date</td>
<td>9/7/12</td>
</tr>
<tr>
<td>Balance Exception Report</td>
<td>Compare Net Payment Amounts to the Previous Period</td>
</tr>
<tr>
<td>Payroll</td>
<td>InFusion US Weekly</td>
</tr>
</tbody>
</table>

5. Click **Next**.

6. Click **Next**.

7. Click **Submit**.

8. Click **OK and View Checklist**.

9. In the task list click **Go to Task** for the Run Balance Exception Report.

10. Click the **View Results** link associated with the process number for the report.

11. When the View results page opens, click the report link. The output is in **PDF format**.

**Define Earning and Deduction Definitions**

**Define Earning and Deduction Definitions: Overview**

The Define Earning and Deduction Definitions task list in the Setup and Maintenance work area contains the tasks required to set up elements and payroll components. Your implementation may include a few predefined elements, usually for legislative tax deductions. Use the Manage Elements task to create additional elements and the associated objects required to support their processing. The objects vary depending on the element classification and category. Use the task list to review elements and the additional objects created for them, and to add element eligibility rules and default calculation values.

All tasks are located in the Setup and Maintenance work area. You can add eligibility rules for predefined elements here; you use the task Manage Elements.
Manage Elements

Use the Manage Elements task to review element definitions and to create new elements. You must create at least one element eligibility record for all predefined and newly created elements. When you create an element, your selection of the element classification and category determines the questions on a predefined template. Submitting the template generates an element definition, which you can edit, as required. The following figure shows the tasks involved.

**Important**

Make sure you set product usage to Payroll using the Manage Payroll Product Usage task before you create elements for payroll processing, to ensure the elements are created using the appropriate element templates.

Creating some elements also creates component groups, calculation value definitions, and other calculation information. For example, creating elements such as pension deductions, involuntary deductions, absence elements, and time card elements creates these additional objects. Use the relevant tasks in the Define Earning and Deduction Definitions task list to review the objects generated for each element.

Manage Element Classifications

Elements are grouped into classifications that control processing, such as the sequence in which the elements are processed and the balances they feed. The primary classifications and some balances are predefined. You can create additional balances that the primary classifications feed. Secondary classifications are subsets of the primary classifications, typically used to manage wage basis rules for deductions and taxes. You can create secondary classifications for some legislations, but many legislations predefine them. You cannot remove or change predefined primary or secondary classifications. You can specify costing setup options and frequency rules for element classifications. The default frequency rule is always each period.

Manage Calculation Value Definitions

Payroll components are associated with a set of rates and rules used for calculation or reporting. Review the tables that hold the rates and other values.
used to calculate deduction and exemption amounts. You can modify some value definitions. For example, you might enter a default payee for pension payments. Create new calculation ranges, if required.

Manage Calculation Information

Manage the calculation information for elements that generate components. Review the calculation information supplied at the legislative level, such as the wage basis rules and calculation factors. Component groups are predefined categories of calculation components. Use the Manage Component Group Rules task to view rules for similar components. For some deductions, you can modify the rules, such as the wage basis rules.

The type of payroll calculation determines the way in which calculation cards are created. For example, statutory deduction cards are created automatically on hire (depending on legislation). Other cards are created by processes that load data from other applications, such as time cards. Some cards are created manually, such as involuntary deductions, using the Manage Calculation Cards task in the Payroll Calculation work area.

Manage Element and Calculation Information for Involuntary Deductions

Create involuntary deductions, such as bankruptcy orders, garnishments, child support payments, tax levies, and educational loans using predefined templates. Add the calculation component to a personal calculation card to process the deduction during a payroll run. In the Payment Distribution work area, use the Manage Third Parties task to create third-party payees and the Manage Third-Party Payment Methods task to create payment methods for all external payees.

Manage Element and Calculation Information for Pension Deductions

Create voluntary and pre-statutory deduction elements using predefined templates. To process the deductions in a payroll run, create Benefit and Pensions cards manually for workers who receive pensions or create the cards automatically, if you load pension information using the interface. For other voluntary deductions, such as union membership and charity donations, create element entries.

Add Eligibility Rules For Predefined Elements

The task to add eligibility rules is included on the checklist as a reminder. Use the Manage Elements task to define at least one element eligibility record for every predefined and newly created element. Element eligibility determines who can receive entries of the element. You must create a name for the element eligibility record. Use a naming convention similar to the element’s to easily identify the record, for example, when setting up costing for the element’s eligibility record. Restrict who can receive entries of an element by specifying element criteria. For elements that you make available to all workers, do not specify criteria.

Manage Rate Definitions

Define any rates you require to be based on calculated payroll balances, such as an employee’s average salary during the last three months. Rates can be monetary, such as a pay rate, or non-monetary, such as an absence accrual rate
defined in days or hours. They can be based on a combination of elements, or a single element. You can set limits on the returned rate and specify its periodicity. You can use rate definitions in absence plans and formulas

Overview of 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 Management

You can manage worker absences and corresponding entitlements. To facilitate reporting and analysis of employee absences, you can distinguish between absence categories, absence types, and absence reasons. You can associate an absence element with an absence plan to:
• Process payments for absent time during maternity or long term sickness
• Process disbursement of partial time accruals
• Process accrual disbursement when plan enrollment ends
• Process absence liability amounts

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.

You can use the batch loader from the Payroll Administration work area or the Data Exchange work area to load elements.
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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>Control the order in which the entry value is displayed on element entries.</td>
</tr>
<tr>
<td>Special Purpose</td>
<td>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.</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>Select the value that describes the type of value the entry value can hold, such as number or character.</td>
</tr>
<tr>
<td>Displayed</td>
<td>Select to display the input value on the element entry.</td>
</tr>
<tr>
<td>Allow User Entry</td>
<td>Select to enter values on element entries.</td>
</tr>
<tr>
<td>Required</td>
<td>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.</td>
</tr>
<tr>
<td>Create a Database Item</td>
<td>Select to have a database item created for the input value to make the values available for formulas or system extract.</td>
</tr>
<tr>
<td>Default</td>
<td>Enter a value that appears as the default value for this entry value in element entries, if needed.</td>
</tr>
<tr>
<td>Apply default at runtime</td>
<td>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.</td>
</tr>
<tr>
<td>Minimum</td>
<td>Enter a minimum value for the element, if needed.</td>
</tr>
<tr>
<td>Maximum</td>
<td>Enter a maximum value for the element, if needed.</td>
</tr>
<tr>
<td>Validation Formula</td>
<td>Enter a formula that validates the entry value entered on element entries, if needed.</td>
</tr>
<tr>
<td>Validation Source</td>
<td>Use with the other input value options to select the valid validation method, such as lookups or formulas.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lookup Type</td>
<td>Specify a lookup type to provide a list of values for an element entry value. This option is available for input values of type Character only.</td>
</tr>
<tr>
<td>Warning or Error</td>
<td>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.</td>
</tr>
<tr>
<td>Reference</td>
<td>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. 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.</td>
</tr>
</tbody>
</table>

**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.

**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.

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.

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.

Most classifications also have a priority range. To set the priority you need to edit the element on the Element Summary page. 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

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Your Legislative Data Group</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Standard Earnings</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Regular</td>
</tr>
</tbody>
</table>

4. Click Continue.
5. On the Basic Details page, complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>REGULAR SALARY</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Regular Salary.</td>
</tr>
<tr>
<td>Effective Date</td>
<td>1/1/2010</td>
</tr>
<tr>
<td>Input Currency</td>
<td>US Dollar</td>
</tr>
<tr>
<td>Should every person eligible for the element automatically receive it?</td>
<td>No.</td>
</tr>
<tr>
<td>What is the earliest entry date for this element?</td>
<td>First Standard Earnings Date</td>
</tr>
<tr>
<td>What is the latest entry date for this element?</td>
<td>Last Standard Earning Date</td>
</tr>
<tr>
<td>At which employment level should this element be attached?</td>
<td>Assignment Level</td>
</tr>
<tr>
<td>Does the element recur each payroll period, or does it require explicit entry?</td>
<td>Recurring</td>
</tr>
<tr>
<td>Process the element only once in each payroll period?</td>
<td>Yes</td>
</tr>
<tr>
<td>Can a person have more than one entry of the element in a payroll period?</td>
<td>No</td>
</tr>
<tr>
<td>Process and pay element separately or with other earnings elements?</td>
<td>Process and pay with other earnings</td>
</tr>
</tbody>
</table>
6. Click Next.
7. On the Additional Details page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the calculation rule?</td>
<td>Flat Amount</td>
</tr>
<tr>
<td>How do you want to derive the amount?</td>
<td>Entered value</td>
</tr>
<tr>
<td>What is the time-basis for this element?</td>
<td>Periodically</td>
</tr>
<tr>
<td>Is this element subject to proration?</td>
<td>No</td>
</tr>
<tr>
<td>Is this element subject to retroactive changes?</td>
<td>No</td>
</tr>
<tr>
<td>Use this element to calculate a gross amount from a specified net amount?</td>
<td>No</td>
</tr>
<tr>
<td>Should this element reduce regular earnings?</td>
<td>No</td>
</tr>
</tbody>
</table>

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.
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**.

**Determining Entry Values for an Element: Critical Choices**

You can select rules for an element to define how you can update its element entries. The options include:

- Automatic entry
- Allow multiple entries in same period
- Additional entry

**Automatic Entry**

When you create an element, you can select **Yes** for the question: Should every person eligible for the element automatically receive it? This setting selects the **Automatic entry** option by default for all eligibility records you create for that element. However, you can override the selection for any specific eligibility record before you save it.

When you select this option, saving the eligibility record initiates a payroll flow to create element entries for all eligible workers. You can view the progress of the process in the **Automatic Entry Status** field. If the status shows that an error occurred, you can save the eligibility record again to resubmit the flow.

If you have access to payroll work areas, you can also monitor the progress of the Generate Automatic Element Entries flow by navigating to the Processes and Reports tab through the Payroll Dashboard, Payroll Checklist work area, or Payroll Calculation work area.

Afterward, any updates to the employment records of eligible workers, including hires and terminations, automatically update, create, or end the element entries, as appropriate.

If you select the **Automatic entry** option for an eligibility record, provide a default value for any required input values.

---

**Important**

An element with the **Automatic entry** option selected cannot **allow multiple entries in the same period**.

---

**Allow Multiple Entries in Same Period**

This option enables 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

**Note**

These are the predefined options, you can create others that fit your business needs.

**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.

**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.

**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.

**Creating Elements for Time Card Entries: Explained**

You create elements to process pay based on time card entries, such as elements for regular, overtime, double-time, and shift pay. You must submit a process to create calculation components for the elements, and then transfer the elements to your time provider.

The following figure describes the steps you perform to create elements for use by your time provider and for calculating reported time in payroll.
Create Earnings Elements

When you create an earnings element for use with time cards on the Manage Elements page of the Payroll Calculation work area, you select a primary classification of standard or supplemental earnings, and an element category for time and labor, if available, or if not, for standard. You complete the element template, and indicate a calculation rule of hours multiplied by rate. You must also complete the element eligibility information.

All rate calculation is performed when processing pay. If your time provider displays the rate as a time card field and the worker enters a rate, the formula for the element uses this rate when calculating the run result for the element entry.

In some localizations, payroll managers create elements with a variety of rates and rate codes that apply to overtime. Payroll managers may need to manage overtime as premium time and use average hourly rate calculations to pay overtime premiums.

Submit the Create Time Card Calculation Components Process

After creating elements, you submit the Create Time Card Calculation Components process from the Payroll Checklist or Payroll Calculation work areas. The process creates calculation components for new elements and for existing elements that have a calculation rule of hours multiplied by rate, which were not included previously in this process.

Transfer the Elements to a Time Application or Provider

The Create Time Card Calculation Components process creates mapping IDs for the time entry elements. You transfer this information to your time provider.

If you use Oracle Fusion Time and Labor, you run the Generate Time Card Fields process to convert elements to payroll time types, which Time and Labor administrators can then add as time card fields. The mapping IDs are not displayed. They are included in the transfer process to appropriately map the time entries to the elements when you submit the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas.

If you use a third-party time provider, you must create an extract definition of the time entry elements with their mapping IDs. The third-party provider includes the mapping IDs in the XML file that you upload when you submit the Load Time Card Batches process.

Creating Voluntary and Pre-statutory Deductions: Explained

Use the Manage Elements task to create voluntary and pre-statutory deductions, such as pensions. Pensions are managed through calculation cards. Other voluntary deductions, such as gym membership, union membership, and charity donations, are managed through element entries.

The steps to set up these deductions are as follows:
1. Create the elements.
2. Create the third-party payees.
3. Create a third-party payment method for each third-party payee.
4. Enter the deduction details for each person, which can be done in the following ways, depending on the deduction type and your setup:
   - Create a Benefits and Pensions calculation card.
   - Create an element entry.
   - Load benefit batches.

**Create Elements**

To create a pensions deduction, select the **Pension Plan After Tax** secondary classification and the **Benefit** category. If you want to create pre-statutory deductions, select **Pension Plan Pre-Statutory** as the secondary classification. These selections ensure that a calculation component is created, which you can add to a Benefits and Pensions calculation card.

To create other voluntary deductions:

- Select the **Standard** category. This selection means that you manage these deductions using the Manage Element Entries page.
- After creating the element, you must add a Payee input value and select **Third-Party Payee** as the special purpose for this input value. If appropriate, you can enter a default value on the element or element eligibility record to populate the third-party payee details.

**Create Third-Party Payees**

To create third-party payees use the Manage Third Parties page in the Payment Distribution work area. For pensions, select the **Organization** payee type and select the **Pension Provider** party usage code.

**Create Third-Party Payment Methods**

To create payment methods for all external payees, use the Manage Third-Party Payment Methods task in the Payment Distribution work area.

**Enter Deduction Details for Each Person**

For pensions create a Benefit and Pension calculation card for the worker, add your new pension calculation component to the card, and enter the payee and other details. If you load your pension information using the Load Benefit Batches process, the payroll application creates the calculation card automatically. Before running this process, you must create an XML file that contains the data you want to transfer to payroll.

For other voluntary deductions, create element entries. If the payee is not defaulted from the element or eligibility record, enter the payee on the element entry.

**Creating Payroll Elements for Absence Management: Worked Example**

This example demonstrates how to create an absence element for a vacation accrual absence plan. Based on your setup decisions, this procedure creates the following additional elements:
• Accrual element, to process absence liability amounts
• Entitlement element, process payments for absent time during maternity or long term sickness
• Discretionary Disbursement element, to process disbursement of partial time accruals
• Final Disbursement element, to process accrual disbursement when the absence plan enrollment ends

The name of the element is prefixed to each additional element.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of an absence plan is this element for?</td>
<td>Accrual with entitlement</td>
</tr>
<tr>
<td>Who is eligible to receive this element?</td>
<td>All workers</td>
</tr>
<tr>
<td>Do you want the element to calculate absence liability?</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you want to use a rate or a flat amount to calculate absence liability?</td>
<td>Rate</td>
</tr>
<tr>
<td>How do you want to calculate the absence liability?</td>
<td>Calculate liability on balance change since last period.</td>
</tr>
<tr>
<td>• Using the full accrual balance?</td>
<td></td>
</tr>
<tr>
<td>• Difference between the current accrual balance and the balance previously used for the liability calculation?</td>
<td>Calculate liability on balance change since last period.</td>
</tr>
<tr>
<td>Does your absence plan enable balance payments when enrollment ends?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does your absence plan enable payment of partial accrual balances?</td>
<td>Yes</td>
</tr>
<tr>
<td>How do you want to calculate deductions for paid absences?</td>
<td>Reduce regular earnings by absence payment</td>
</tr>
<tr>
<td>• Reduce regular earnings by the amount of the absence payment so that the worker does not get paid twice?</td>
<td></td>
</tr>
<tr>
<td>• Select a rate to determine the absence deduction amount?</td>
<td></td>
</tr>
</tbody>
</table>

Prerequisites

Ensure that you created a rate definition to determine the monetary value of a unit of absence based on the salary. You create a rate definition using the Manage Rate Definitions task in the Setup and Maintenance work area.

Creating an Absence Element

1. In the Absence Administration work area, click Manage Elements in the Tasks pane to open the Manage Elements page. You can also open this page using the Manage Elements task in the Setup and Maintenance work area or the Payroll Calculations work area.
2. Click Create.
3. In the Create Element window, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Select your legislative data group.</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Absences</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Select an appropriate value for your legislation, such as vacation.</td>
</tr>
<tr>
<td>Category</td>
<td>Absence</td>
</tr>
</tbody>
</table>

4. Click **Continue**.

5. On the Create Element: Basic Information page, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>What type of absence plan is this?</td>
<td>Accrual with entitlement</td>
</tr>
</tbody>
</table>

6. Click **Next**.

7. On the Create Elements: Additional Details page, complete the fields as shown in this table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which balance should be used for the liability calculation?</td>
<td>Balance change since last period.</td>
</tr>
<tr>
<td>Does this plan enable balance payments when enrollment ends?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does this plan enable partial payment of absences?</td>
<td>Yes</td>
</tr>
<tr>
<td>How should deductions be made for this plan?</td>
<td>Reduce regular earnings by absence payment</td>
</tr>
</tbody>
</table>

8. Click **Next**.

9. On the Create Element: Review page, review the information that you entered so far.

10. Click **Submit** to open the Element Summary page.

**Creating Element Eligibility**

1. In the Element Overview section of the Element Summary page, click the **Element Eligibility** node.

2. Click **Create Element Eligibility** from the Actions menu.

3. In the Element Eligibility section, enter Vacation Payment Open in the **Element Eligibility Name** text box. Leave the rest of the fields on the page blank.
4. Click Submit.
5. Click Done.

**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 rate, mid-payroll period, could trigger proration. You add a proration formula to the element and add the element to a proration event group. Proration creates two payroll run results: one for the payroll period up to the day before the event, and one from the date of the event to the end of the period.

**Proration Setup Options**

When you create or update a recurring element, you can make it subject to proration and select a proration event group. The event group specifies the events that trigger proration. A proration formula is associated with the element automatically. You have two setup options:

- Proration calculation: You can create a new proration formula and select it for the element if you want to change the predefined proration calculation.
- Proration event group: You can edit the predefined event group (Entry Changes for Proration) or create a new one and select it for the element if you want to change the events that trigger proration.

**Proration Calculation for Earnings**

The proration formula determines how to prorate earnings in the proration period. For example, if there is a pay increase during a payroll period, the formula calculates the prorated value before and after the date of the increase. If you use the predefined global proration formula for earnings (GLB_EARN_PRORATION), the proration calculation depends on the element’s calculation rule, as shown in the following tables.

**Important**

Some predefined legislations provide a different default proration formula.

<table>
<thead>
<tr>
<th>Calculation Rule</th>
<th>Rate to Pay in Proration Period</th>
<th>Days in Proration Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Amount</td>
<td>Periodic value / number of calendar days in payroll period</td>
<td>Number of calendar days in proration period</td>
</tr>
<tr>
<td>Example: Salary increases to 6000 for a monthly paid employee on the 27th of April</td>
<td>6000/30 days = 200 per day</td>
<td>4 days (27th to 30th April)</td>
</tr>
</tbody>
</table>

In the above example, the amount to pay after the salary increase is 200 * 4 = 800.

<table>
<thead>
<tr>
<th>Calculation Rule</th>
<th>Rate to Pay in Proration Period</th>
<th>Days in Proration Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Earnings</td>
<td>Periodic value / number of calendar days in payroll period</td>
<td>Number of calendar days in proration period</td>
</tr>
<tr>
<td>Example: Allowance increase to 5% of monthly earnings (6000) on the 27th of April</td>
<td>(6000 * .05) / 30 days = 10 per day</td>
<td>4 days (27th to 30th April)</td>
</tr>
</tbody>
</table>
In the above example, the amount to pay after the allowance increase is $10 \times 4 = 40$.

<table>
<thead>
<tr>
<th>Calculation Rule</th>
<th>Rate to Pay in Proration Period</th>
<th>Days in Proration Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days x Rate</td>
<td>Formula checks for information in the following order, to derive the hourly rate: 1. Rate and periodicity on element entry 2. An amount or rate held on a salary element entry associated with a salary basis, which determines the periodicity</td>
<td>Number of days on element entry, if available. Otherwise, number of days on the work schedule in the proration period.</td>
</tr>
<tr>
<td>Example: Daily rate increase to 200 for a monthly-paid employee on the 27th of April</td>
<td>200 per day</td>
<td>4 days (27th to 30th April)</td>
</tr>
</tbody>
</table>

In the above example, the amount to pay after the daily rate increase is $200 \times 4 = 800$.

<table>
<thead>
<tr>
<th>Calculation Rule</th>
<th>Rate to Pay in Proration Period</th>
<th>Hours in Proration Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours x Rate</td>
<td>Formula checks for information in the following order, to derive the hourly rate: 1. Rate and periodicity on element entry 2. An amount or rate held on a salary element entry associated with a salary basis, which determines the periodicity</td>
<td>Number of hours on the element entry, if available. Otherwise, the number of hours on the work schedule in the proration period. However, if the Time Card Required field contains ‘Yes’ on the person’s employment record, the hours must be available on the element entry, otherwise the payroll run displays an error.</td>
</tr>
<tr>
<td>Example: Hourly rate increase to 30 for a weekly-paid employee who worked 15 hours in the proration period.</td>
<td>30 per hour</td>
<td>15 hours</td>
</tr>
</tbody>
</table>

In the above example, the amount to pay after the hourly rate increase is $30 \times 15 = 450$.

The calculation of the proration rate may use the following constants:

- 206 - Annual working days
- 2080 - Annual working hours

When the proration unit is based on work schedules, the application checks whether a work schedule is available for the assignment and at higher levels until it finds a schedule, in the following order:

1. Assignment
2. Position
3. Job
4. Department
5. Location
6. Legal Employer

7. Enterprise

If no work schedule exists at any level, the work duration is based on the employee’s start and end time. For example, if start time is 9:00 and end time is 17:00, the duration is 8 hours per day. If there is no schedule or start and end time, the formula uses a default value of 8.5 hours per day based on a start time of 8:30 and end time of 17:00.

**Proration Calculation for Deductions**

If you use the predefined global proration formula for deductions (GLB_DEDN_PRORATION), the proration value is the periodic value multiplied by the number of calendar days in the proration period and divided by the number of calendar days in the payroll period.

**Gross-Up Earnings: How They’re Calculated**

When you create an earnings element, you can indicate that it pays a specified net amount. Use this feature, if you need to pay a person a guaranteed take-home pay (net) per payroll period, or a bonus of a specified net amount. You can create a gross-up element for any recurring or nonrecurring earnings element primary classification:

- Standard Earnings
- Supplemental Earnings
- Taxable Benefits (Imputed Earnings)

**Settings That Affect Gross-Up Processing**

You define which deductions are used to calculate the gross amount from the specified net amount.

You must create the element as a gross-up element by answering Yes to the question "Use this element to calculate a gross amount from a specified net amount?"

In each element entry, you specify the limits of the gross-up processing as follows:

- In the Net value, enter the value you want the employee to receive.
- In the To Within value, enter the allowed difference between the desired amount and the actual amount. This cannot be zero.

**Note**

If these values are the same across most entries, you can enter a default value on the element eligibility record.

**How Gross-Up Earning Is Calculated**

The formulas for net-to-gross processing do the following:

- The predefined iterative formula, GLB_EARN_GROSSUP, takes as input the desired net amount (Net input value) and the amount by which net can differ from the desired amount (To Within 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 the 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 minus 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.

Creating Gross-Up Earnings Element: Worked Example

This example demonstrates how to create a gross-up earnings element when an organization wants to pay a person a specific net amount on a bonus.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What legislative data group are we using?</td>
<td>US LDG</td>
</tr>
<tr>
<td>What primary classification is this earnings?</td>
<td>Supplemental Earnings</td>
</tr>
<tr>
<td>Is the element recurring or nonrecurring?</td>
<td>Nonrecurring</td>
</tr>
<tr>
<td>Is the earnings element to be paid separately or with other earnings?</td>
<td>Process and pay separately</td>
</tr>
<tr>
<td>Who is the bonus recipient?</td>
<td>Linda Swift</td>
</tr>
<tr>
<td>How much is the bonus?</td>
<td>1000 USD</td>
</tr>
<tr>
<td>What is the allowed difference between the specified bonus and the actual amount paid?</td>
<td>.05 USD</td>
</tr>
</tbody>
</table>

**Note**

All gross-up earnings elements must be processed and paid separately from other elements.

**Prerequisites**

This worked example assumes that the following prerequisites have already been set up:

1. The legislative data group, US LDG, has been set up.
2. The employee, Linda Swift, is already hired and has a tax reporting card.
Creating a Gross-Up Bonus Earnings

Perform the following steps to create the gross-up bonus earnings:

1. In the Payroll Calculation work area, click Manage Elements.
2. Click Create and select the values shown in the table in the Create Element window.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>US LDG</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Supplemental Earnings</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Bonus</td>
</tr>
<tr>
<td>Category</td>
<td>Standard</td>
</tr>
</tbody>
</table>

3. Click Continue.
4. On the Create Element: Basic Information page select the values shown in the table.

<table>
<thead>
<tr>
<th>Field or Question</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Bonus</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Bonus</td>
</tr>
<tr>
<td>Effective Date</td>
<td>01/01/1951</td>
</tr>
<tr>
<td>What is the earliest entry date for this element?</td>
<td>First Standard Earning Date</td>
</tr>
<tr>
<td>What is the latest entry date for the element?</td>
<td>Last Standard Earning Date</td>
</tr>
<tr>
<td>Does the element recur each payroll period, or does it require explicit entry?</td>
<td>Nonrecurring</td>
</tr>
<tr>
<td>Process and pay element separately or with the other earnings elements?</td>
<td>Process separately and pay separately</td>
</tr>
</tbody>
</table>

5. Click Next.
6. On the Create Element: Additional Details page select the values shown in the table.

<table>
<thead>
<tr>
<th>Field or Question</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the calculation rule?</td>
<td>Flat Amount</td>
</tr>
</tbody>
</table>

Note

The default value is Flat Amount. Do not change this value. All gross-up earnings must have a calculation rule of Flat Amount.
7. Click Next.
8. Click Submit.
9. In the Element Overview pane, select and review each input values created for a gross-up earnings, as shown in the table.

<table>
<thead>
<tr>
<th>Input Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Value</td>
<td>The gross pay value to be processed in the payroll run, entered by the iterative formula when it completes gross-up calculations.</td>
</tr>
<tr>
<td>Net</td>
<td>The amount is the user-entered flat amount which provides the iterative formula with the desired net pay.</td>
</tr>
<tr>
<td>Low Gross</td>
<td>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.</td>
</tr>
<tr>
<td>High Gross</td>
<td>Used by the iterative formula to hold the higher gross pay guess, to feed into the next iteration of the formula.</td>
</tr>
<tr>
<td>Remainder</td>
<td>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.</td>
</tr>
<tr>
<td>To Within</td>
<td>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.</td>
</tr>
<tr>
<td>Additional Amount</td>
<td>The amount to add to desired net to calculate gross pay. Returned by the iterative formula.</td>
</tr>
</tbody>
</table>

Creating Eligibility Rules

Perform the following steps to create eligibility rules:

1. In the Element Overview pane, click Element Eligibility.
2. Click the Actions menu and the Create Element Eligibility menu item to define eligibility rules.
3. In the Element Eligibility Name field, enter Bonus.
4. Click Save.
Reviewing Iterative Processing Order
Perform the following steps to review the iterative processing order:

1. In the Element Overview pane, click Bonus.
2. In the Advanced Rules section, review the iterative order.

Note
The default value is 1000. If you have more than one iterative element that may be processed in the same payroll flow, it is important to adjust the iterative order to indicate which should be processed first. Iterative order must be in the reverse sequence of the processing priority numbers. The element with the lowest iterative priority number is reduced first.

Including Balances in the Gross-Up Processing
Perform the following steps to include balances in the gross-up process:

1. In the Element Overview pane, click Balance Feeds.
2. Review the balances which feed the gross-up bonus.
3. In the Element Overview pane, click Gross Balance Exclusions.
4. Add any balances that have been set to exclude by default if you want to include it on this specific gross-up earnings.
5. Click Submit.

Creating an Element Entry
In this example, create the element entry for the bonus for Linda Swift.

1. In the Payroll Calculation work area, select Manage Element Entries.
2. In the Name field, enter Swift, Linda.
3. In the Legislative Data Group field, select US LDG.
4. In the Effective As-of Date field, enter 01/01/2013.
5. Click Search.
6. In the Search Results, select Linda Swift.
7. Click Create.
8. In the Effective Date field, enter 01/01/2013.
9. In the Element Name field, select Bonus.
10. In the Assignment field, select E1026.
11. Click Continue.
12. In the Net Value field, enter 1000.00

Note
If you want to pay a gross-up element, without gross-up functionality, add the flat amount in the Amount field. This amount will be the gross paid and it will be reduced by the applicable deductions.
13. In the To Within field, enter .05.

14. Click Submit.

**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.

**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.

**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.

**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.

---

**Note**

A base pay element associated with a salary basis must be recurring.

**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 Calculation Value Definitions

Calculation Value Definitions: Explained

Rates and amounts may vary depending on the calculation value definition in which the balance falls. A calculation value definition is a table that holds the values and associated rates, amounts, or rules to use when calculating a rate or amount. For example, a calculation value definition for a graduated tax might contain two 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 calculation value definitions used to calculate statutory and involuntary deductions. You cannot edit predefined calculation value definitions. You can add new calculation value definitions using the Manage Calculation Value Definitions task in the Payroll Calculation area. When you create a calculation value definition, you specify the legislative data group (LDG) to which the definition applies. The new definition can then be used when processing deductions for the LDG.

Range Groups

Each calculation value definition belongs to a range group used to categorize related calculation value definitions. Examples of a range groups include city tax information and social insurance information. A set of standard range groups is delivered with the application and available to all legislations. When you create a calculation value definition, you can select an existing range group or create a new one.
**Associating Calculation Value Definitions with Calculation Factors**

Calculation value definitions are building blocks used in payroll calculations. You associate a calculation value definition with a calculation factor, which defines the rule for calculating the element for balances in the definition table. The calculation value definition 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 a deduction using this calculation value definition only if the person lives in Region B, and then annualize the calculated result to produce the final amount.

Use the Manage Component Group Rules task in the Payroll Calculation work area to view and manage calculation factors.

**Calculation Value Definitions: Examples**

The examples that follow illustrate how to use both static and dynamic values in calculation value definitions, and how to override the default calculation type for individual calculation values.

**Static Values**

The calculation value definition 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 values, 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 Calculation Values for the calculation value definition, so the values are static.

<table>
<thead>
<tr>
<th>From Value</th>
<th>To Value</th>
<th>Calculation Type Override</th>
<th>Rate or Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>199</td>
<td>Flat Amount</td>
<td>0</td>
</tr>
<tr>
<td>200</td>
<td>999</td>
<td>Flat Amount</td>
<td>4 (percent)</td>
</tr>
<tr>
<td>1000</td>
<td>1999</td>
<td>Flat Amount</td>
<td>6 (percent)</td>
</tr>
<tr>
<td>2000</td>
<td>999,999,999</td>
<td>Flat Amount</td>
<td>300</td>
</tr>
</tbody>
</table>

**Dynamic Values**

The calculation value definition for a tax exemption uses a default calculation type of Incremental Rate. The first and last values specify the Flat Amount calculation type, which overrides the default type. The Gross Earnings YTD database item is specified in the Basis of Calculation Values field, which means that the values represent a percentage of year-to-date gross earnings. The following table shows sample dynamic values for this calculation value definition:

<table>
<thead>
<tr>
<th>From Value</th>
<th>To Value</th>
<th>Calculation Type Override</th>
<th>Rate or Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.1</td>
<td>Flat Amount</td>
<td>300</td>
</tr>
<tr>
<td>.1</td>
<td>.2</td>
<td>10 (percent)</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>.2</td>
<td>.9</td>
<td>30 (percent)</td>
<td></td>
</tr>
<tr>
<td>.9</td>
<td>1</td>
<td>Flat Amount 0</td>
<td></td>
</tr>
</tbody>
</table>

The first 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.

**Enterable Values on Calculation Cards: Explained**

Some values entered on a calculation card override values defined in a calculation value definition. 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 calculation card at the payroll relationship level.

When the payroll process runs, it checks for values entered on calculation cards in the following order:

1. Payroll relationship
2. Tax reporting unit (deductions only)
3. Payroll statutory unit (deductions only)

When the process finds an entered value, it stops checking and uses the values defined at that level.

**Note**

Some localizations do not support calculation cards for tax reporting units or payroll statutory units.

**Allowing Enterable Values on Calculation Cards**

Enterable values for statutory and involuntary deductions are predefined. You cannot allow new enterable values for predefined calculation value definitions.

If you create a custom calculation value definition, you can allow users to enter a value on a calculation card by adding the value to the Enterable Calculation Values section on the Calculation Cards table on the Create or Edit Calculation Value Definition page. You must provide the display name to appear on the calculation card. The list of values available for entry varies depending on the calculation type. For example, you can allow users to enter the percentage value for a flat rate calculation or the monetary value for a flat amount calculation. The following values are available for all calculation types except text:

- **Calculation value definition**: Uses the values entered on the calculation card to calculate the amount.
- **Total amount**: Uses the amount entered on the calculation card as the total deduction amount.
- **Additional amount**: Adds the amount entered on the calculation card to the calculated amount.
If you allow multiple enterable values for the same calculation value definition, the calculation process applies them in the following priority:

1. Total amount
2. Deduction range
3. Calculation value, such as rate or flat amount

**Entering Values on Calculation Cards**

Use the Manage Calculation Cards in the Payroll Calculation or Payroll Administration work area to enter values on personal calculation cards. The contents and format of the page vary between legislations and card types. If you see a tab called Enterable Calculation Values on Calculation Cards when you select a calculation component, you can select the type and enter a value on this tab. For example, you might enter a rate to be used in the calculation or an amount to be added to the calculated amount.

If your legislation and card type supports calculation cards at multiple levels, use the Manage Legal Entity Calculation Cards task in the Setup and Maintenance work area to create calculation card overrides at the payroll statutory unit level. Use the Manage Legal Reporting Unit Calculation Cards task in the Setup and Maintenance work area to create calculation card overrides at the tax reporting unit level.

**Calculation Types in Calculation Value Definitions: Explained**

The Calculation Type field on the Create or Edit Calculation Value Definition page specifies the default type of calculation to use for all calculation value definition rows. You can override the default calculation type for individual rows in the Calculation 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 Calculation 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:

<table>
<thead>
<tr>
<th>Calculation Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Amount</td>
<td>Uses the specified flat amount as the total deduction amount.</td>
</tr>
<tr>
<td>Flat Amount Times Multiplier</td>
<td>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.</td>
</tr>
<tr>
<td>Conditional Flat Amount</td>
<td>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.</td>
</tr>
<tr>
<td>Flat Rate</td>
<td>Applies the specified rate to the balance. For example, to apply a rate of 10 percent, enter 10.</td>
</tr>
</tbody>
</table>
### 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 | Calculates the total amount based on the following formula:  
| y = Ax - Bz |  
| Where:  
| • y is the deducted amount.  
| • x is the calculated amount.  
| • A and B are specified values.  
| • z is a factor from a predefined formula. The value defaults to 1. | |

| Standard Formula 2 | Calculates the value based on the following formula:  
| y = (x - A) x B + Cz |  
| Where:  
| • y is the deducted amount.  
| • x is the calculated amount.  
| • A, B, and C are specified values.  
| • z is a factor from a predefined formula. The value defaults to 1. | |

| 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 Calculation Information

### Payroll Calculations, Elements, and Calculation Cards: How They Work Together

Calculations use information that is defined and managed at different levels. The following figure shows how calculation information at the legislative and personal levels feeds into the calculation process.
**Element Processing**

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

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

**Calculation Component Group Rules**

Each calculation component group, such as involuntary deductions or benefits, has associated rates and rules used to calculate the amount.

- For deductions, 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 personal calculation card.

- Calculation factors associated with an element indicate which calculation value definition to use when calculating the 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 personal calculation card. The calculated deductible amount would determine the specific rate to use from that definition. A calculation value definition can also define
a processing rule, such as a proration rule for calculating bankruptcy payments.

Use the Manage Component Group Rules task in the Payroll Calculation work area to view all wage basis rules, related elements, and calculation factors defined for a particular component group. Use the Manage Calculation Value Definition task to view or create calculation value definitions and calculation values.

**Personal Calculation Card**

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

- A calculation component on a calculation card relates to an element defined at the legislative level. Adding a calculation component to a calculation card typically 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 calculation card override values defined in calculation value definitions 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 calculation card.

**Note**

For some localizations, you can create deduction calculation 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 calculations. They define how calculations are aggregated and reported.

Use the Manage Calculation Cards task in the Payroll Administration or Payroll Calculation work area to create and edit personal calculation cards.

**Note**

Each legislation supports a predefined set of calculation card types, such as cards for statutory deductions, involuntary deductions, time card entries, absences, and benefits and pensions. Additional cards may be supported to capture information for reporting purposes.

**Payroll Calculation Information: Explained**

Creating an element generates the rules and definitions required to calculate an earnings or deduction amount. For all types of elements, these rules and definitions include elements, formulas, and processing rules. For some types of elements, such as involuntary deductions, absence elements, and time card elements, additional rules and definitions are required. These types of elements are associated with payroll components, calculation value definitions, and calculation factors. Deductions may also be associated with wage basis rules and tax reporting units. The following figure shows the relationship between these rules and definitions.
Define Payroll

Component Group

Each payroll component belongs to a component group used to categorize related deductions calculations. Predefined component groups include social insurance, taxes, retirement plans, involuntary deductions, benefits, and more. The component groups available and their names vary by legislation. Use the Manage Component Group Rules page to view component groups.

Calculation Components

A calculation component is a specific type of earnings, deduction, absence or benefit plan and is associated with a set of rates and rules used for its calculation or reporting. For example, child support, education loan, and alimony are calculation components in the US involuntary deduction component group. Calculation components for statutory deductions are predefined for each legislation and cannot be changed. You can create calculation components for involuntary, voluntary, and pre-statutory deductions, time card entries, and absence entries by creating an element using the associated classifications. Use the Manage Calculation Information task to view calculation components and their associated rules.

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 Component Group Rules task to create new wage basis rules.
Related Elements
Each payroll component is associated with at least one element. The element definition specifies how and when the element should be processed and identifies the input values for the element. An element’s processing rule drives the calculation of the element, accessing calculation factors and wage basis rules to derive the amount.

Related elements for statutory deductions are predefined. Related elements for other payroll components are created when you create the element. Element entries are created automatically when the calculation component for the element is added to a personal calculation 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 calculation value definition 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 calculation factors using the Manage Calculation Information task, and then modify an element’s payroll formula to use the new calculation factors.

Calculation Value Definitions
A calculation value definition stores calculation rates and rules, which may vary based on other criteria. For example, 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 calculation value definitions are provided for statutory and involuntary deductions. Use the Manage Calculation Value Definitions task to view and manage calculation value definitions. For absence, time and labor, and benefit and pensions you can create new value definitions and edit them. Statutory and involuntary deductions cannot be changed in most cases.

Tax Reporting Units
At the legislative level, a calculation can be associated with one or more tax reporting units for reporting purposes. These associations do not impact the calculation or aggregation during a payroll run. You associate tax reporting units with specific calculation components on a personal calculation card.

Payroll Calculation Information at the Legislative Level: Examples
Use these examples of an individual income tax deduction and a social insurance deduction to understand how the rules and definitions for calculating payroll components work together. Each example provides sample values for the following rules and definitions:
- Component 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.

- **Component group**: Taxes
- **Component name**: Individual Income Tax Deduction
- **References for payroll component name**:

<table>
<thead>
<tr>
<th>Reference Name</th>
<th>Reference Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical Region</td>
<td>Mainland</td>
</tr>
<tr>
<td>Geographical Region</td>
<td>Territory</td>
</tr>
</tbody>
</table>

- **References for calculation factors**:

<table>
<thead>
<tr>
<th>Reference Name</th>
<th>Reference Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Status</td>
<td>Resident</td>
</tr>
<tr>
<td>Residential Status</td>
<td>Nonresident</td>
</tr>
</tbody>
</table>

- **Wage basis rules**:

<table>
<thead>
<tr>
<th>Geographical Region Reference Value</th>
<th>Primary Classification</th>
<th>Secondary Classification</th>
<th>Use in Wage Basis?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainland</td>
<td>Standard Earnings</td>
<td>All secondary classifications selected</td>
<td>Y</td>
</tr>
<tr>
<td>Territory</td>
<td>Standard Earnings</td>
<td>All secondary classifications selected</td>
<td>Y</td>
</tr>
<tr>
<td>Mainland</td>
<td>Supplemental Earnings</td>
<td>Commission</td>
<td>Y</td>
</tr>
<tr>
<td>Territory</td>
<td>Supplemental Earnings</td>
<td>Commission</td>
<td>N</td>
</tr>
<tr>
<td>Mainland</td>
<td>Supplemental Earnings</td>
<td>Personal Use of Company Car</td>
<td>Y</td>
</tr>
<tr>
<td>Territory</td>
<td>Supplemental Earnings</td>
<td>Personal Use of Company Car</td>
<td>N</td>
</tr>
</tbody>
</table>

- **Related element**: Individual Income Tax Processor
  The processing rule (a fast formula) associated with this element drives the income tax 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:

<table>
<thead>
<tr>
<th>Resident Status Reference Value</th>
<th>Calculation Step</th>
<th>Calculation Method</th>
<th>Calculation Value Definition</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonresident</td>
<td>Calculate exemption amount</td>
<td>None</td>
<td>Tax Exemption Amount for Nonresident</td>
<td>4800</td>
</tr>
<tr>
<td>Resident</td>
<td>Calculate exemption amount</td>
<td>None</td>
<td>Tax Exemption for Resident</td>
<td>2000</td>
</tr>
<tr>
<td>(None)</td>
<td>Calculate individual income tax</td>
<td>None</td>
<td>Individual Income Tax Rate</td>
<td>0-50000:3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50000-100000:4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Over 10000:5%</td>
</tr>
</tbody>
</table>

• Tax reporting units: All tax reporting units defined for this legislation can report this calculation component. (You associate calculation components with a specific tax reporting unit on the personal calculation 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 rules and definitions apply to this calculation at the legislative level:

• Component group: Social Insurance
• Component name: Medical Insurance Deduction
• References for payroll component name: None
• References for calculation factors:

<table>
<thead>
<tr>
<th>Reference Name</th>
<th>Reference Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution Level</td>
<td>Employee</td>
</tr>
<tr>
<td>Contribution Level</td>
<td>Employer</td>
</tr>
</tbody>
</table>

• Wage basis rules:

<table>
<thead>
<tr>
<th>Primary Classification</th>
<th>Secondary Classification</th>
<th>Use in Wage Basis?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Earnings</td>
<td>All secondary classifications selected</td>
<td>Y</td>
</tr>
<tr>
<td>Supplemental Earnings</td>
<td>All secondary classifications selected</td>
<td>Y</td>
</tr>
</tbody>
</table>
• Related elements: Medical Insurance Calculation element

The processing rule (fast formula) associated with this element drives the social insurance 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:

<table>
<thead>
<tr>
<th>Contribution Level Reference Value</th>
<th>Calculation Step</th>
<th>Calculation Method</th>
<th>Calculation Value Definition</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Calculate Employee Base Amount</td>
<td>None</td>
<td>Employee Contribution Upper Limit</td>
<td>8000</td>
</tr>
<tr>
<td>Employee</td>
<td>Calculate Employer Base Amount</td>
<td>None</td>
<td>Employer Contribution Upper Limit</td>
<td>5000</td>
</tr>
<tr>
<td>Employer</td>
<td>Calculate Employee Contribution Amount</td>
<td>None</td>
<td>Employee Contribution Amount</td>
<td>4%</td>
</tr>
<tr>
<td>Employer</td>
<td>Calculate Employer Contribution Amount</td>
<td>None</td>
<td>Employer Contribution Amount</td>
<td>3%</td>
</tr>
</tbody>
</table>

• Tax reporting units: All tax reporting units defined for this legislation can report this calculation component. (You associate calculation components with a specific tax reporting unit on the personal calculation card.)

Wage Basis Rules: Explained

Wage basis rules determine the earnings that contribute to an amount or, for exemptions, the elements that reduce the amount subject to calculation.

Element Classifications

Each wage basis rule is associated with a primary or secondary element classification. For calculation elements, the classifications identify which types of earnings are subject to the calculation. For exemption elements, the classifications identify which type of earnings reduce the amount subject to calculation.

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 calculations using the Manage Component Group Rules task in the Payroll Calculation work area. The process is summarized below:

1. On the Manage Component Group Rules page, select the group to which the new rule applies.
2. In the Component Group Overview section, click the 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 item to which the rule applies.
5. Select the primary and secondary classifications to be used in the wage basis for the calculation.
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 calculation 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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Earnings in Salary</th>
<th>Earnings in Tips</th>
<th>Deductible Amount</th>
<th>Deduction Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dover County</td>
<td>5000</td>
<td>50</td>
<td>5050</td>
<td>505</td>
</tr>
<tr>
<td>Smith County</td>
<td>5000</td>
<td>(50 - Exempt)</td>
<td>5000</td>
<td>500</td>
</tr>
</tbody>
</table>

The wage basis rules for this tax calculation are as follows:

<table>
<thead>
<tr>
<th>Region (Reference Value)</th>
<th>Primary Classification</th>
<th>Secondary Classification</th>
<th>Use in Wage Basis?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dover County</td>
<td>Earnings</td>
<td>Salary</td>
<td>Y</td>
</tr>
<tr>
<td>Dover County</td>
<td>Earnings</td>
<td>Tips</td>
<td>Y</td>
</tr>
<tr>
<td>Smith County</td>
<td>Earnings</td>
<td>Salary</td>
<td>Y</td>
</tr>
<tr>
<td>Smith County</td>
<td>Earnings</td>
<td>Tips</td>
<td>N</td>
</tr>
</tbody>
</table>

Calculation Factors: Explained

A calculation factor defines a data-driven rule for calculating payroll elements. For example, a calculation factor for a tax deduction element might define a
Define Payroll

context reference (such as a city or state), the calculation value definition (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.

To view and manage calculation factors, select the Manage Calculation Information task in the Payroll Calculation work area, and select the payroll component. In the Calculation 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.

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 payroll component in the Overview pane on the Manage Calculation Information 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.

Calculation Value Definition

Each calculation factor is associated with a calculation value definition 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 calculation. For example, a calculation value definition 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 calculation value definitions are
provided for statutory and involuntary deductions. Use the Manage Calculation Value Definitions task to view and manage value definitions.

**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 calculation value definition. They provide a wrapper around the calculation of a deduction by retrieving values from a calculation value definition, 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 calculation, you might create a social insurance deduction processor element with the following calculation factors:

<table>
<thead>
<tr>
<th>Employer or Employee Code (Reference Value)</th>
<th>Calculation Method</th>
<th>Calculation Step</th>
<th>Calculation Value Definition</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>None</td>
<td>Calculate Social Insurance Employee Rate</td>
<td>Social Insurance Employee Rate</td>
<td>4 percent flat rate</td>
</tr>
<tr>
<td>Employer</td>
<td>None</td>
<td>Calculate Social Insurance Employer Rate</td>
<td>Social Insurance Employer Rate</td>
<td>2 percent flat rate</td>
</tr>
<tr>
<td>Employee</td>
<td>None</td>
<td>Calculate Social Insurance Employee Wage Limit</td>
<td>Social Insurance Employee Wage Limit</td>
<td>100,000 flat amount</td>
</tr>
</tbody>
</table>
Employer | None | Calculate Social Insurance Employer Wage Limit | Social Insurance Employer Wage | 100,000 flat amount

---

**National Income Tax Deduction Using Calculation Steps**

A national income tax calculation involves 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.

<table>
<thead>
<tr>
<th>Filing Status (Reference Value)</th>
<th>Calculation Method</th>
<th>Calculation Steps</th>
<th>Calculation Value Definition</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>None</td>
<td>Calculate Region A Allowance - Single</td>
<td>Region A Allowance - Single</td>
<td>10,000 flat amount</td>
</tr>
<tr>
<td>Single</td>
<td>None</td>
<td>Calculate Region A Exemption Amount - Single</td>
<td>Region A Exemption - Single</td>
<td>0 flat amount</td>
</tr>
<tr>
<td>Single</td>
<td>None</td>
<td>Calculate Region A Regular Rate - Single</td>
<td>Region A Rate - Single</td>
<td>7 percent flat rate</td>
</tr>
<tr>
<td>Married</td>
<td>None</td>
<td>Calculate Region A Allowance - Married</td>
<td>Region A Allowance - Married</td>
<td>10,000 flat amount</td>
</tr>
<tr>
<td>Married</td>
<td>None</td>
<td>Calculate Region A Exemption Amount - Married</td>
<td>Region A Exemption - Married</td>
<td>1,000 flat amount</td>
</tr>
<tr>
<td>Married</td>
<td>None</td>
<td>Calculate Region A Regular Rate - Married</td>
<td>Region A Rate - Married</td>
<td>6 percent flat rate</td>
</tr>
</tbody>
</table>

**FAQs for Manage Calculation Information**

**Why can't I edit the secondary classifications for a wage basis rule?**

The rule for the primary classification was probably defined to include all secondary classifications in the wage basis. Edit the primary classification row and deselect the **Select all secondary classifications** option. You can then edit individual secondary classification rows, and select the **Use in wage basis** option only for those classifications to be considered in the wage basis.

**Why can't I create payroll components on the Manage Calculation Information page?**

You can view existing components on this page, but you can't create new components. Use the Manage Elements task to create new elements. Creating some elements, including involuntary deductions, pensions, and absence elements, also creates associated payroll components.
Manage Elements and Calculation Information for Involuntary Deductions

Creating Involuntary Deductions: Overview

Use element templates to create the involuntary deduction types supported for your legislation, such as bankruptcy orders, garnishments, child support payments, tax levies, and educational loans. You can create involuntary deduction elements as needed using these predefined templates. You can then add the corresponding calculation component to a personal calculation 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 payment method for a person, 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 calculation card.
  For example, you might set up an electronic funds 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 payment method for an organization, you select the legislative data group for employees whose pay is subject to the deduction. This makes the organization payment method available for selection as a payee on the employee calculation cards.
  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 third-party organization, you designate the County Sheriff with
the party usage code of External Payee. When you add the garnishment order to the employee's involuntary deduction calculation card, you can select the County Sheriff in the Processing Fee Payee field.

You can create a third-party organization 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 calculation 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, 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 calculation 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 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.

Note

To define costing for related elements, you must open and edit each element individually.

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 calculation component that you can add to an employee's involuntary deduction card. Fee rules and proration rules are predefined in calculation value definitions, based on statutory rules that vary by localization. Global rules 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 calculation card. (Oldest is paid first.)

• No fee amounts or protected pay amounts are predefined. You can enter these amounts as overrides on the involuntary deduction calculation card.

**Create an Involuntary Deduction Calculation Card**

Using the Manage Calculation Cards task in the Payroll Administration or Payroll Calculation work area, search for and select a payroll relationship. Create a new calculation card of the type Involuntary Deductions.

**Add the Calculation Component to the Calculation Card**

On the Manage Calculation Cards page:

1. Click Add Row and select the calculation component with the same name as the previously defined involuntary deduction element. Adding the calculation component to the card automatically creates an element entry for the related element.

2. If the calculation card will include more than one calculation 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 element entries 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 Calculation 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 calculation components for the same or different involuntary deduction types. For example, you could add two child support
components and one garnishment components to the same calculation card. Assign each component a unique reference number and, optionally, specify the subprocessing order.

**Enter Values for the Deduction Amounts**

You enter the order amount, fee, or other amounts used in the calculation on the deduction calculation card. The values you enter replace any default values defined in calculation value definitions 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 Enterable Calculation Values on the Calculation Cards tab, create a value 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. Enter additional values, 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 value you enter.

**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 payroll component plus information entered on the calculation card.

**Entering Values for Involuntary Deductions: Critical Choices**

You define the order amount for an involuntary deduction by entering a calculation value on the person’s involuntary deduction card. You can also enter values for fees and other amounts used in the calculation. These values override default values defined in calculation value definitions at the legislative level.

**Enterable Calculation Values on Calculation Cards**

The values you can enter on a calculation card may vary by legislation, but typically include the items described in this table.

---

**Note**

For most values, you can enter either an amount or a rate. Enter a rate if you want the application to calculate the amount as a percentage of available pay. For example, to define a rate of 20 percent for the order amount, create an Order Amount (Rate) value and enter 20 in the Rate field.
<table>
<thead>
<tr>
<th>Calculation Value Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Amount</td>
<td>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.</td>
</tr>
<tr>
<td>Organization Fee</td>
<td>Rate or amount paid to the Organization Fee Payee each time the deduction is processed.</td>
</tr>
<tr>
<td>Person Fee</td>
<td>Rate or amount paid to the Person Fee Payee each time the deduction item is processed.</td>
</tr>
<tr>
<td>Processing Fee</td>
<td>Rate or amount paid to the Processing Fee Payee each time the deduction is processed.</td>
</tr>
<tr>
<td>Initial Fee</td>
<td>Rate or amount paid to Processing Fee Payee the first time this deduction is processed.</td>
</tr>
<tr>
<td>Maximum Withholding Amount and Minimum Withholding Amount</td>
<td>Maximum and minimum rates or amounts that can be withheld in one payroll processing period for this deduction.</td>
</tr>
<tr>
<td>Maximum Withholding Duration</td>
<td>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.</td>
</tr>
<tr>
<td>Protected Pay Amount</td>
<td>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).</td>
</tr>
<tr>
<td>Exemption Percentage</td>
<td>Percentage of the employee’s pay that is exempt from this deduction.</td>
</tr>
</tbody>
</table>

**Involuntary Deduction Processing: Examples**

Use these examples to understand how involuntary deductions are processed in different scenarios. 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 Calculation Card: Add a calculation 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** value, and set the amount to 500.
4. Create a **Processing Fee Amount** value, and set the amount to 10.

5. Create an **Initial Fee Amount** value, 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 for 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 Calculation Card: Add a calculation component for a court order and then:
1. Select the **Order Amount Payee**.
2. Set the **Frequency** to monthly.
3. Create an **Order Amount** value, and set the amount to 100.
4. Create a **Protected Pay Amount** value, 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 Calculation Card: Add a calculation component for a court order and then:
1. Select the **Order Amount Payee**.
2. Set the **Frequency** to monthly.
3. Create an **Order Amount** value 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 calculation 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 Calculation Card: Add 3 calculation components to the employee's calculation card. Set the frequency of each one to monthly. Define protected pay and order amount values for each as shown in this table.

<table>
<thead>
<tr>
<th>Involuntary Deduction</th>
<th>Protected Pay Amount</th>
<th>Order Amount</th>
<th>Date Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Support 1</td>
<td>500</td>
<td>1000</td>
<td>23 January 2012</td>
</tr>
<tr>
<td>Child Support 2</td>
<td>600</td>
<td>1100</td>
<td>2 February 2012</td>
</tr>
<tr>
<td>Child Support 3</td>
<td>1000</td>
<td>1200</td>
<td>2 February 2012</td>
</tr>
</tbody>
</table>

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.

Manage Elements and Calculation Information for Pensions

Creating Voluntary and Pre-statutory Deductions: Explained

Use the Manage Elements task to create voluntary and pre-statutory deductions, such as pensions. Pensions are managed through calculation cards. Other voluntary deductions, such as gym membership, union membership, and charity donations, are managed through element entries.
The steps to set up these deductions are as follows:
1. Create the elements.
2. Create the third-party payees.
3. Create a third-party payment method for each third-party payee.
4. Enter the deduction details for each person, which can be done in the following ways, depending on the deduction type and your setup:
   - Create a Benefits and Pensions calculation card.
   - Create an element entry.
   - Load benefit batches.

Create Elements
To create a pensions deduction, select the Pension Plan After Tax secondary classification and the Benefit category. If you want to create pre-statutory
deductions, select **Pension Plan Pre-Statutory** as the secondary classification. These selections ensure that a calculation component is created, which you can add to a Benefits and Pensions calculation card.

To create other voluntary deductions:

- Select the **Standard** category. This selection means that you manage these deductions using the Manage Element Entries page.
- After creating the element, you must add a Payee input value and select **Third-Party Payee** as the special purpose for this input value. If appropriate, you can enter a default value on the element or element eligibility record to populate the third-party payee details.

**Create Third-Party Payees**

To create third-party payees use the Manage Third Parties page in the Payment Distribution work area. For pensions, select the **Organization** payee type and select the **Pension Provider** party usage code.

**Create Third-Party Payment Methods**

To create payment methods for all external payees, use the Manage Third-Party Payment Methods task in the Payment Distribution work area.

**Enter Deduction Details for Each Person**

For pensions create a Benefit and Pension calculation card for the worker, add your new pension calculation component to the card, and enter the payee and other details. If you load your pension information using the Load Benefit Batches process, the payroll application creates the calculation card automatically. Before running this process, you must create an XML file that contains the data you want to transfer to payroll.

For other voluntary deductions, create element entries. If the payee is not defaulted from the element or eligibility record, enter the payee on the element entry.

**Creating Elements for Pension Deductions: Worked Example**

This example shows how payroll managers create a pension deduction element using an element template. In this example, you create the element, review the element, add an eligibility record, and then update the deduction amount.

The following table summarizes key decisions for each element that you create and provides the selections for this example.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the fixed amount or percentage deduction and how often is it deducted?</td>
<td>Fixed amount deduction of 250 every two months</td>
</tr>
<tr>
<td>Are there any limits: age limits, maximum contribution limits, or pensionable earnings limits?</td>
<td>Maximum contribution amount is 25000. Pensionable earning limits are 500 - 500000. No age limits.</td>
</tr>
<tr>
<td>Are additional contributions allowed?</td>
<td>Yes, an additional fixed amount.</td>
</tr>
<tr>
<td>Are employer contributions allowed?</td>
<td>Yes, a percentage deduction of 0.06.</td>
</tr>
<tr>
<td>Are overrides allowed?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the deduction subject to proration?</td>
<td>No</td>
</tr>
</tbody>
</table>
Creating a Pension Element

1. In the Payroll Calculation work area, click **Manage Elements**.
2. Click **Create**.
3. Complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Your Legislative Data Group</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Voluntary Deductions or Pre-statutory Deduction</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Appropriate classification for your legislation, such as Pension Plan After Tax</td>
</tr>
<tr>
<td>Category</td>
<td>Benefit</td>
</tr>
</tbody>
</table>

4. Click **Continue**.
5. On the Basic Details page, complete the fields, as shown in this table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Pension Plan - Salaried</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Pension Plan - Salaried</td>
</tr>
<tr>
<td>Effective Date</td>
<td>1/1/2013</td>
</tr>
<tr>
<td>Input Currency</td>
<td>US Dollar</td>
</tr>
<tr>
<td>What is the earliest entry date for this element?</td>
<td>First Standard Earnings Date</td>
</tr>
<tr>
<td>What is the latest entry date for this element?</td>
<td>Last Standard Earning Date</td>
</tr>
</tbody>
</table>

6. Click **Next**.
7. On the Additional Details page, complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage amounts must be entered as decimals, such 0.1 for 10 percent.</td>
</tr>
<tr>
<td>If you are passing amounts through the interface, the calculation rule</td>
</tr>
<tr>
<td>must be a fixed amount deduction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the calculation rule?</td>
<td>Fixed amount deduction</td>
</tr>
<tr>
<td>What is the fixed amount?</td>
<td>250</td>
</tr>
<tr>
<td>What is the time basis?</td>
<td>Semimonthly</td>
</tr>
</tbody>
</table>
Are there any age limits for this deduction? | No  
---|---  
Is there a maximum contribution limit for this deduction? | Yes  
What is the maximum contribution amount? | 25000  
Are there any pensionable earnings limits for this deduction? | Yes  
What is the minimum pensionable earnings limit? | 500  
What is the maximum pensionable earnings limit? | 500000  
Are additional contributions allowed for this element? | Yes  
What is the calculation rule? | Fixed amount deduction  
Are employer contributions allowed for this deduction? | Yes  
What is the calculation rule? | Percentage deduction  
What is the percentage? | .06  
What is the time basis? | Semimonthly  
Are there any age limits for this deduction? | No  
Is there a maximum contribution limit for this deduction? | Yes  
What is the maximum contribution amount? | 22000  
Are there any pensionable earnings limits for this deduction? | Yes  
What is the minimum pensionable earnings limit? | 500  
What is the maximum pensionable earnings limit? | 500000  
Are overrides allowed for this element? | Yes  
Is this element subject to proration? | No

8. Click Next.
9. Verify the information is correct.
10. Click Submit.

**Reviewing a Pension 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 payroll relationship level.
4. In the Currency section, verify that the currency is the one you selected.
5. Check that a payroll component was created for your element. You can view the component on the calculation cards of the workers, which are displayed in the Deductions section on the Manage Element Summary page.

Creating an Eligibility Record for the Deduction
On the Element Summary page, you can create as many eligibility records as you require:
   1. In the Element Overview section, click the Element Eligibility link.
   2. Select Create Element Eligibility from the Actions menu.
   3. Enter a name for the eligibility record.
   4. Select any criteria if you want to restrict who can pay this deduction.
   5. Click Submit.

Reviewing and Updating Calculation Value Definitions for the Deduction
You can view and update the contribution rules and limit rules created for the pension deduction. You can also enter a default payee. For example, to change the flat amount deduction value for the employee contribution:
   1. On the Manage Calculation Value Definitions page, enter the element name in the Name field and select your legislative data group; click Search.
   2. Select Pension Plan - Salaried Flat Amount for Employee Contribution in the search results.
   3. Select Total amount in the Enterable Calculation Values on Calculation Cards section.
   4. Click Edit then Update in the Calculation Values section.
   5. Enter the new deduction amount in the Flat Amount column.
   6. Click Submit.
   7. Click Done.

Entering Calculation Values for Pensions: Points to Consider
Create a Benefits and Pensions calculation card for each worker who pays a pension deduction. On the card, select the calculation component that was created automatically for your pension element, and enter the required contribution amounts and limits, as described in this topic. If you use the Load Benefit Batches process to transfer values from a benefits application, this process creates the calculation cards for you and enters the contribution amounts and limits.

Default Contribution Amounts and Limits
You enter some default contribution amounts and limits when you create the pension element. These default values are stored as calculation value definitions.
You can edit the default values using the Manage Calculation Value Definitions page. You can also add a default payee or a separate payee for each employee by entering the payee ID in the Enterable Calculation Values area on the Calculation Cards tab.

**Enterable Calculation Values for Pensions**

To enter or override a calculation value for one worker, follow these steps:

1. Open the worker’s Benefits and Pension calculation card on the Manage Calculation Cards page.
2. Add the calculation component for the pension, if it isn’t already on the card.
3. With this calculation component selected, click the **Enterable Calculation Values on Calculation Cards** tab.
4. Click **Create**.
5. Select the value you want to enter. Typically, you will enter a payee, reference number, and any additional contributions. You can also override any default contribution amounts or limits.

The following table lists the calculation values you can enter.

**Note**

If the calculation component was created by running the Load Benefit Batches process, you can only enter or override the following values: Payee, Reference Number, and Employee Additional Contribution.

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Default Provided at Element Setup</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payee</td>
<td>Y</td>
<td>N</td>
<td>Enter the ID of an organization with the usage of Pension Provider.</td>
</tr>
<tr>
<td>Reference Number</td>
<td>Y or N</td>
<td>N</td>
<td>Free text</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Depending on the localization rules this field may or may not be required.</td>
</tr>
<tr>
<td>Employee Contributions</td>
<td>Y</td>
<td>Y</td>
<td>Percent or flat amount as per element setup. Enter percentages as decimal values.</td>
</tr>
<tr>
<td>Additional Employee</td>
<td>N</td>
<td>N</td>
<td>Percentage or flat amount as per element setup, if additional contributions are allowed.</td>
</tr>
<tr>
<td>Contributions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Age</td>
<td>N</td>
<td>Y</td>
<td>Numerical age</td>
</tr>
</tbody>
</table>
If the element was set up to allow an employer contribution, you will also see these enterable values:

<table>
<thead>
<tr>
<th>Calculation Value</th>
<th>Required</th>
<th>Default Provided at Element Setup</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Contribution</td>
<td>Y</td>
<td>Y</td>
<td>Percentage or flat amount as per element setup</td>
</tr>
<tr>
<td>Minimum Age Limit for Employer Contribution</td>
<td>N</td>
<td>Y</td>
<td>Numerical entry</td>
</tr>
<tr>
<td>Maximum Age Limit for Employer Contribution</td>
<td>N</td>
<td>Y</td>
<td>Numerical entry</td>
</tr>
<tr>
<td>Maximum Contribution Amount for Employer Contribution</td>
<td>N</td>
<td>Y</td>
<td>Numerical amount</td>
</tr>
<tr>
<td>Minimum Pensionable Earnings Limit for Employer Contribution</td>
<td>N</td>
<td>Y</td>
<td>Numerical amount</td>
</tr>
<tr>
<td>Maximum Pensionable Earnings Limit for Employer Contribution</td>
<td>N</td>
<td>Y</td>
<td>Numerical amount</td>
</tr>
</tbody>
</table>

**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.

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.

Manage Rate Definitions

Rate Definitions: Explained

You can calculate compensation rates and other rates, such as accrual rates, using payroll balances. For example, you can define a vacation pay rate based on salary and car allowance payments over a three month period. You can also define a sickness pay rate based on a run dimension for a balance that holds the current salary. To specify a periodicity for the returned rate, you can use values such as hourly or annual. Or, you can select a formula to control the periodicity conversion rules. You can also set limits on the returned rate, specify multiplication factors, and use rates in absence plans and in formulas.

You define the rates required by your business practices and processes. For example, you can use a rate definition to pay a unit of absence at a different rate than the rate that is paid for a normal day of work. Rates can be monetary, such as a pay rate. Or they can be non-monetary, such as an absence accrual rate, which can be in days or hours.

Rate definitions can support the calculation of a rate over a defined period. They return rate information based on calculated payroll balances, such as an employee’s average salary rate based on their salary payments during the last three months.

Aspects of rate definitions include:

• Rate Contributors

• Periodicities

• Formulas

Rate Contributors

Rate definitions can return rate information for a single earning or deduction, such as salary, or for a combination of elements, such as the sum of salary and car allowance payments.
If you are returning rate information for a single earning or deduction, you create one rate contributor. If you are using a combination of elements, you either create one contributor, selecting a balance fed by multiple elements, or you create multiple contributor records. Each rate definition must have at least one rate contributor record.

To define rules for each rate that contributes to the rate definition, each rate contributor must consist of attributes, such as the name of the balance, the type of rate, if the rate adds or subtracts to the overall rate value, and the periodicity of the rate. Each rate definition must have at least one rate contributor record.

Each rate contributor must specify the name of a balance, the type of value (actual), and whether the contributor adds to or subtracts from the overall rate value. All balances that contribute to a rate must use the same currency.

For example, an hourly holiday pay rate could be based on adding together the following values, which are all earned over the three months prior to the absence start date:

- Actual wage
- Incentive bonus
- Seniority bonus
- Other changeable components of remuneration

Use the Create Rate Definition page to define the rate contributors and the rate.

**Periodicities**

All rates must be calculated for a defined periodicity, such as hourly, daily, weekly, monthly, or payroll period. You must specify a periodicity, such as hourly or weekly, for the returned rate and each rate contributors.

Starting with this periodicity, the application will first convert all values that contribute to the rate into a single periodicity. It will then convert that rate into the return periodicity that is selected on the Create Rate Definition page.

For example, for a rate with a periodicity of weekly using the annualization conversion formula, the rates definition program will do the following:

1. Take the value and periodicity of each contributing earning and deduction and calculate an annual figure. The rate now has a periodicity of annual.
2. Convert the annual figure into a weekly value. When you use the rate in a formula, you can override the default periodicity.

By default, rates are converted using the following values:

- 52 weeks in a year
- 12 months in a year
- 260 working days in a year

To specify different conversion rates, you can define your own formula using the Rate Convertor formula type.

**Formulas**

Oracle provides a rates definition formula called RATE ENGINE to make rates available to multiple Human Capital Management (HCM) applications. When
a formula or application calls this formula, it must specify the name of the rate as an input. In addition, it can pass optional formula inputs, such as periodicity. If the periodicity is passed as a parameter, this is used as the return periodicity rather than the one specified on the rate definition.

The rate formula returns a value and a periodicity.

Creating Rate Definitions: Points to Consider

To create rate definitions you should know how to use the following to get a desired rate:

- Reference dates
- Factor rules
- Minimum and maximum values

Reference Dates

When you define a rate, you may want to select a reference date by which the application will retrieve rate contributor information and use it in the rate calculation. The Reference Date field contains values that list different time definitions.

For example, to retrieve a rate as of the actual start of an absence, select Absence Start Date. The reference date specifies the context for the balance dimension. To retrieve a rate as of a specific time period, select a specific time period as the value for the field.

The Reference Date field lists only the following types of time definitions:

- Time Span - a point in the time definition
- Retrieval Date - a type of time definition that is based on a database item (DBI)

Selecting a value for the Reference Date field is optional.

Factor Rules

To apply a factor or multiplier to a calculated rate, use the Factor Rule and Factor fields on the Create Rate Definitions page in the Returned Rate Details section.

To create a rate definition using a factor rule:

- Select Value as the factor rule
- In the Factor field enter the number by which you want the system to multiply the rate

The factor value can be a simple value, where 0.5 would equal 50 percent of the rate.

Use the same method when defining individual rate contributors. For example, you can define rate contributors to calculate hourly values based on salary and bonus. You could then apply a factor of 1.0 or 100 percent to the salary balance contributor and a factor of 0.5 or 50 percent to the bonus balance contributor.

Note
The factor rule is applied to the rate before the periodicity conversion is applied.

Minimum and Maximum Values

You can define minimum and maximum values for the returned rate. The specified rate is calculated and compared to the minimum and maximum values. If the rate falls below the minimum or above the maximum, the application uses the value specified rather than the calculated rate.

The minimum and maximum rate values can be:

- Null, no minimum or maximum value is used
- A specified value, such as 20.45
- Based on another rate

If the minimum or maximum rule is based on another rate, that rate will be converted into the same periodicity as the parent rate definition. For example, if the periodicity of the rate definition is weekly, the rate used to validate the minimum and maximum rules will also be converted into a weekly value regardless of its own periodicity.

Caution

If you are using another rate to calculate a minimum or maximum rate, be careful that you don't create a loop. For example, Rate A has minimum value that is based on Rate B, which has a minimum value based on Rate A. This situation would result in a runtime error.

You can also apply minimum and maximum rules to individual rate contributors.

Define Events

Payroll Event Groups: Explained

A payroll event group defines the types of data changes that trigger retroactive event notifications or prorated calculation of a person's earnings or deductions.

There are two types of payroll event groups:

- Proration
- Retroactive

Proration

Using proration, you can calculate proportionate earnings and deduction amounts whenever payroll-relevant data changes during a payroll period, for example, if a person joins or leaves an organization or if a person's pay rate changes during a payroll period.

If you want to prorate an element, such as basic salary, assign a proration event group to it containing the proration points that affect a person's salary. You can
use the predefined event group, or create a new one. When you create an event group, you select the events that activate proration calculation, such as changes to:

- Hourly or annual pay rates
- Working hours
- Allowances or deductions

**Restriction**

You can only select events that represent changes to element entries, calculation cards, and calculation value definitions.

**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.

<table>
<thead>
<tr>
<th>Entity</th>
<th>Update Type</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Entry Value</td>
<td>Correction</td>
<td>SCREEN_ENTRY_VALUE</td>
</tr>
<tr>
<td>Element Entry</td>
<td>Update</td>
<td>EFFECTIVE_START_DATE</td>
</tr>
<tr>
<td>Element Entry</td>
<td>Update</td>
<td>EFFECTIVE_END_DATE</td>
</tr>
<tr>
<td>Element Entry</td>
<td>Logical Date Change</td>
<td></td>
</tr>
<tr>
<td>Element Entry</td>
<td>Insert</td>
<td></td>
</tr>
<tr>
<td>Element Entry</td>
<td>Delete Changes</td>
<td></td>
</tr>
</tbody>
</table>

**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 select 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. Four areas are 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 facilitates 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 that 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 carry a role assigned to the bank account to use it.

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 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 and the batch loader are 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.

**Important**

If you enable employees or other roles to create banks and branches, provide guidance to use unique names and follow appropriate naming conventions. If enabled, employees can create bank and branches using the Manage Personal Payment Methods task.

---

**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.

The standard 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’s BACS, and in Australia it’s BECS.

**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 bank 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’s 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.

Note

If you are costing your payments, enter cost account information on the Manage Costing of Payment Sources page in the Accounting Distribution work area for cash, liability, and cash clearing accounts if you are reconciling your payments. You can indicate whether you plan to cost cleared payments and external payments, and transfer final accounting entries to general ledger.

Payment Rules

The payment source defined initially 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 value as No to instead receive notifications that they can resolve manually.

Default Organization Payment Methods

You can define as many organization payment methods as required for your enterprise. When you create a payroll, you can select which of organization payment methods are valid for employees assigned to that payroll. You select
one method as the default payment 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.

**Relationship to Other Objects**

You select organization payment methods when defining other objects, such as payroll definitions, third-party payment methods, and personal 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 specific 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.

<table>
<thead>
<tr>
<th>Object</th>
<th>Functional Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Payment Method</td>
<td>Associates a person to a specific organization method. If the payment type is EFT, the person’s bank information is included in the personal payment method.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
| Third-Party Payment Method    | Enables separate payment information for payments to third parties who are not on the payroll.  
|                               | Payments to third parties, such as garnishments or other involuntary deductions, are typically check payments processed separately from the payroll.  
|                               | To manage third-party payment methods, payroll managers and administrators use the Manage Third-Party Payment Methods task on the Payment Distribution work area. |
| Payroll Definition            | Establishes the default payment method for payments to employees who have no personal payment method defined.  
|                               | To manage payroll definitions, payroll managers and administrators use the Manage Payroll Definitions task on the Payroll Calculation work area. |
Run-Type Payment Method

Overrides a payroll’s default payment method for payments to employees with no personal payment method defined.

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.

To manage run type payment methods, payroll managers and administrators use the Manage Run Types task on the Payroll Calculation work area.

---

### 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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many organization payment methods are needed?</td>
<td>One method to pay by electronic funds transfer (EFT) in US dollars.</td>
</tr>
<tr>
<td>How many payment sources are needed?</td>
<td>Three. One default payment source for the US, one source for payments in Texas, and one source for payments in California.</td>
</tr>
<tr>
<td>How many bank accounts will be used?</td>
<td>Three. One for each payment source.</td>
</tr>
<tr>
<td>What payment method rules will be used?</td>
<td>Rules for bank accounts used as payment sources based on tax reporting unit.</td>
</tr>
<tr>
<td>Is notification required to alert the source financial institution before processing EFT payments?</td>
<td>Yes. Ten days before EFT payments.</td>
</tr>
</tbody>
</table>

In this example, the InFusion US company pays its workers by EFT payments. To comply with state regulations for out-of-state payments, the company sets payment rules to pay from two different banks based on 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 the Organization Payment Method**

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**.

   **Tip**

   Select a date that is on or before the effective date of the payroll definition or other objects that are related to this payment method.

5. In the Basic Details section, complete the fields as shown in this table, and then click **Save**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Payroll Direct Deposit US</td>
</tr>
<tr>
<td>Payment Type</td>
<td>NACHA</td>
</tr>
<tr>
<td>Currency</td>
<td>US Dollar</td>
</tr>
</tbody>
</table>

6. Click **Save**.

**Adding EFT File Information**

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 Payment Information section, enter values as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenotification Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Prenotification Days</td>
<td>10</td>
</tr>
</tbody>
</table>

2. Click **Save**.
Setting Up the Payment Sources

Perform the following steps three times to create each payment source.

1. In the Payment Sources section under Payment Source Information, click Create.

On the Create Payment Source page, complete the fields in order, as shown in this table, and then click Continue.

<table>
<thead>
<tr>
<th>Field</th>
<th>US Value</th>
<th>Texas Value</th>
<th>California Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Payroll EFT Source US</td>
<td>Payroll EFT Source Texas</td>
<td>Payroll EFT Source California</td>
</tr>
<tr>
<td>Bank Account</td>
<td>InFusion US Wells Fargo</td>
<td>Comerica Bank Texas</td>
<td>Bank of the West California</td>
</tr>
</tbody>
</table>

Note

Keep your payment source names unique and as specific as possible for each scenario. This will help when managing more complicated combinations of organization payment methods and payment rules.

Creating Payment Rules

1. In the Payment Method Rules section, for Payroll EFT Source US, ensure that the default setting is Yes.

2. In the same section, 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Texas Value</th>
<th>California Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tax Reporting Unit</td>
<td>Texas TRU</td>
<td>California TRU</td>
</tr>
<tr>
<td>Payment Source</td>
<td>Payroll EFT Source Texas</td>
<td>Payroll EFT Source California</td>
</tr>
</tbody>
</table>

3. Click Submit.

Payroll Setup Tasks 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 work area.
Define Payroll

• 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 Global 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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Banks</td>
<td>Create the bank information required for the payment sources used in your payroll transactions.</td>
</tr>
<tr>
<td>Manage Bank Branches</td>
<td>Create the bank branch information required for the payment sources used in your payroll transactions.</td>
</tr>
<tr>
<td>Manage Bank Accounts</td>
<td>Create the bank account information required for the payment sources used in your payroll transactions.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Bank Statement Transaction Codes</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Cash Transaction Type Mapping</td>
<td>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.</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Bank Statement Reconciliation Tolerance Rules</td>
<td>Create tolerance rules based on date, amount, or percentage that prevent or warn you when reconciliation exceeds a defined tolerance.</td>
</tr>
<tr>
<td>Manage Bank Statement Reconciliation Rule Sets</td>
<td>Assign a group of matching rules and tolerance rules to a bank account for reconciling bank statement lines with transactions.</td>
</tr>
<tr>
<td>Manage Bank Accounts</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Creating Third Parties: Points to Consider**

You create third parties when you want to process payments to external organizations and people who are not on the payroll. You can also create predefined third-party organization for payments, such as pension providers or professional bodies, or third-party organizations that do not receive payments, such as disability organizations. When you create third parties, you record the name, address, and contact information, and associate the third parties to employees on their calculation cards or element entries. Third-party types are Person and Organization.

**Party Usage Codes**

All third parties created on the Manage Third Parties page are also created as trading community members. When you create a third-party person, the application automatically assigns a party usage code of External Payee. There is no other purpose for creating a third-party person aside from associating it with employees to receive payments, such as involuntary deductions. When you create a third-party organization, you can associate it with a party usage code.

Third-party organizations can have the following party usage codes:

<table>
<thead>
<tr>
<th>Party Usage Code</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Payee</td>
<td>Identifies organizations that can be associated with employee calculation cards or element entries, such as County Sheriff for involuntary deductions. Use this party usage code for organizations when the others don't apply.</td>
</tr>
<tr>
<td>Payment Issuing Authority</td>
<td>Identifies organizations responsible for issuing instructions for involuntary deductions, such as a tax levy or bankruptcy payment order. An example of a payment issuing authority is a court, agency, or government official that issues a legal process. Payment issuing authorities do not receive payments.</td>
</tr>
<tr>
<td>Pension Provider</td>
<td>Identifies organizations that provide pension administration for employee pension deductions.</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Professional Body</td>
<td>Identifies organizations entrusted with maintaining oversight of the legitimate practice of a professional occupation. For example, the American Society for Mechanical Engineers in the US.</td>
</tr>
<tr>
<td>Bargaining Association</td>
<td>Identifies organizations representing employees in negotiations, for involuntary deductions.</td>
</tr>
<tr>
<td>Disability Organization</td>
<td>Identifies organizations that are authorized to make disability assessments. For example, the Royal National Institute of Blind People in the UK. Disability organizations do not receive payments.</td>
</tr>
</tbody>
</table>

**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 or voluntary deductions, such as pension plan or union membership payments.

Before creating a third-party payment method, create the third party using the Manage Third Parties task in the Payment Distribution work area. In addition, the organization payment method that determines the payment source to use for payments 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 legislative data group of the employee whose pay is subject to the deduction, and then select the employee payroll relationship. This makes the third-party person payment method available for selection as a payee on the employee’s calculation 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 calculation card, you can select Mary Smith in the Order Amount Payee field.

**Payments to Organizations**

When you create a third-party organization for payments, you select a party usage code. When you create the payment method for the third-party organization, you select the legislative data group of the employees whose pay is subject to the deduction, to make the organization available for selection as a payee on the employee calculation cards.

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 calculation card, you can select the County Sheriff in the Processing Fee Payee field.

Define Payroll Costing

Payroll Cost Allocation Key Flexfield Setup: 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 costing 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. Use a similar sequence of segments and naming conventions to 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, consider the number of segments required and the purpose of each segment.

<table>
<thead>
<tr>
<th>Decision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many cost allocation key flexfield segments are required?</td>
<td>Consider how many segments you require to capture information, such as cost center information. For example, smaller organizations might require a single segment for the cost center, such as the department. Larger organizations might require five segments to capture the cost center, such as segments for the business unit, division, region, location, and department.</td>
</tr>
<tr>
<td>Do you need segments for future use?</td>
<td>Create 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.</td>
</tr>
<tr>
<td>Do you capture context sensitive information for the legislation?</td>
<td>Create segment to record context sensitive information, for example if you maintain separate liability accounts for each state and state tax.</td>
</tr>
<tr>
<td>Project and task information used by other applications</td>
<td>Create additional segments, for example, to record the break down of costs of a project for reporting purposes.</td>
</tr>
</tbody>
</table>

**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 costing 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 costing 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 costing hierarchy for the cost segments, but the offset segments that balance the costs are available for entry only at the element level of the costing hierarchy.

You do not have to enter a costing segment at each level of the costing hierarchy where it is available for entry. The costing 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 costing 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 costing hierarchy.

![Cost Hierarchy Used to Build Each Account Segment](image)

Review these points when setting up segments and labels, and determining the levels where you can enter cost account information.
<table>
<thead>
<tr>
<th>Decision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the names for your segment labels need to correspond to the ones used by your financial department for the accounting flexfield?</td>
<td>Consider using the same names you entered for the labels for the accounting flexfield. Using similar labels facilitates communication between the payroll and financial departments when resolving payroll costing and accounting issues.</td>
</tr>
<tr>
<td>At which levels of the cost hierarchy will you capture information?</td>
<td>Consider which level of the cost hierarchy is the primary source of values for that segment and which levels should receive overrides. Using the example of the cost center, typically you capture cost center information at the department level and also as an override at the element level for balance sheet accounts, such as liability accounts for deductions. You may also need an override at the element entry level for employees who perform work for other cost centers.</td>
</tr>
</tbody>
</table>

The employment level at which you create an element and the Costing Type option for that element are key factors in determining which levels of the costing hierarchy the application checks for account segments when building the account number for a payroll run result. When you set up the cost allocation key flexfield, consider the levels of the costing hierarchy the application will check for a Costing Type and ensure that you specify the account segments you need at those levels for the information you want to capture.

Typically, earnings elements are created at the assignment or terms employment level and deduction elements at the payroll relationship level. Earnings usually have a costing type of Costed and the application checks all levels of the costing hierarchy.

The Costing Type specified for most deductions is Fixed Costed, which skips the department, job, and position levels of the costing hierarchy and checks the payroll, element eligibility, and person payroll relationship, and element entry levels only. You can use element entry level costing for deductions, but it is not recommended. The following table includes example of the segment labels you might specify for costing.

<table>
<thead>
<tr>
<th>Cost Hierarchy Level (Segment Label)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll</td>
<td>Select payroll for segments that seldom change for the people assigned to the payroll, such as company, line of business, and future use segments.</td>
</tr>
<tr>
<td>Element Eligibility</td>
<td>Select element eligibility for natural accounts.</td>
</tr>
<tr>
<td></td>
<td>You also use this level for cost center segments needed for balance sheet accounts, such as deduction elements which are usually created at the payroll relationship level.</td>
</tr>
<tr>
<td>Job or Position</td>
<td>Select job to compare and roll-up costs based upon job category.</td>
</tr>
<tr>
<td></td>
<td>Select position if you are using position management at your enterprise, to better track the cost of turnover to the enterprise.</td>
</tr>
<tr>
<td></td>
<td>Costing at these levels requires higher maintenance to set up and manage the costing in diverse and complex organizations.</td>
</tr>
</tbody>
</table>
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 Fusion 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 allocation key 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
- Subledger accounting methods and rules
- Cash Management bank account and reconciliation information
- Cost allocation key flexfield
- Payroll costing 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 Accounting to create journal entries for transfer to Oracle Fusion General Ledger.

The following figure shows the different components you set up for payroll costing grouped by application.
Financials

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.

Note

If Financials is not installed, when you configure your offerings, select the feature choice for the Payroll Costing Options for Maintain Subledger Application and Accounting Method.

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 Oracle Fusion Global Payroll, you should ensure that the same natural account is used in Global 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 Global 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 Financials duty roles can perform these tasks.

Subledger Accounting

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

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.

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 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 Ledgers 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.

**Payroll Costing 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 Setup Tasks for Costing Accounts: 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 Oracle Fusion 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. As a guideline, unless you intend to set up suspense and default accounts for each department, set up a suspense and default account at the payroll level to ensure that you capture unallocated or invalid costing.

**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 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**

Allocating and distributing costs are two different methods of managing costing. Allocation splits a cost for an object, such as a department, between cost accounts. Distribution adds the costs of an element to the costing results of other elements.

When you allocate costs, you create costing records for a department, job, position, or person and specify for each cost account entered, the percentage charged to the account. You allocate costs when creating:

- Cost accounts for departments

  Costing at the job and position level can require a high level maintenance in diverse and complex organizations. Most enterprises allocate costs at the department level to distribute costs across cost centers or when costs vary. For example, during the period that a facility is not in normal operation while the production line is retooled, you might allocate the labor costs for that work to a different account.

- Cost accounts for jobs and positions

  The benefit of costing at these levels is to capture detail below the cost center level, for example, to produce costing results that you can compare based on the job category. Some enterprises allocate costs across jobs or positions that share a cost. For example, you might allocate the cost for a public sector position to the accounts that fund the grant and the matching grant.

- Priority accounts

- Cost accounts for persons in your enterprise
You create these cost accounts after you complete your implementation and create person records. As with jobs and positions, costing at the person level requires maintenance, but it gives you flexibility of dividing the costs for a person’s time based on the costing practices at your enterprise. For example, if a person’s assignment involves working 60 percent of the time for one manager and 40 percent of the time for another manager at a different cost center, the payroll manager has several choices. The payroll manager might create 2 assignments, or have the managers report the amount of time spent working for each cost center, but if the time is split predictably, the payroll manager might create 2 cost accounts at the person’s assignment level and allocate the appropriate percentage to each cost center.

**Note**

With the exception of the Priority account, the total percentage allocated to each account must equal 100 percent, or the costing processes place the unallocated percentage in a default account.

When you distribute costs, you add the costing result of the distributed element to the costing results of the elements included in the distribution group, based on the ratio each element contributes to the total cost of the distribution group. You create a costing record for the distributed element and specify the distribution group that includes the elements. For example, you might distribute an overhead expense such as an employer liability by distributing it over a group of earnings elements, effectively adding the cost of the distributed element’s run results to the costs of the run results for each earnings element in the distribution group.

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 earnings 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 page.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Parameter Description</th>
<th>Default Value</th>
</tr>
</thead>
</table>
| Accounting Date for Transfer to General Ledger | Date earned or the process date of the payroll run that is used to transfer and post journal entries for costing results to Oracle Fusion General Ledger. E = Date Earned  

  P = Process Date                                                                 | P                                                                                         |               |
### Reversal and Balance Adjustment Accounting Date

<table>
<thead>
<tr>
<th></th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Transfer using process end date of the Transfer to Subledger Accounting task as the accounting date</td>
</tr>
<tr>
<td>P</td>
<td>Use process date of the reversal or balance adjustment as the accounting date</td>
</tr>
</tbody>
</table>

### 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 entries for the current payroll period. The process end date is the effective date used to recalculate the costing and for the accounting dated used when transferring the recalculated costing results to Oracle Fusion General Ledger.

- **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 when calculating retroactive pay changes, and records the difference found between the original entry and the retroactive result.

### Payroll Setup Tasks for Financials: Explained

Oracle Fusion Global Payroll integrates with Oracle Fusion Financials. If you set up costing to cost run results and payments, and distribute accounting for payroll costs, you create components in Financials as part of your implementation, such as chart of accounts, ledgers, and accounting calendars. If you use Global Payroll to process payroll payments, you set up these components before setting up the banks used for payments.

Complete the following setup tasks in the Setup and Maintenance work area for the chart of accounts and ledgers. The application implementation consultant job role can perform the following tasks. You can read more about the setup tasks in the Oracle Fusion Common Implementation Guide.
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.

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Chart of Accounts Value Sets</td>
<td>Create new or review existing value sets for association with a key flexfield segment.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Structures</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Structure Instances</td>
<td>Create account structure instances used to record transactions and maintain account balances.</td>
</tr>
<tr>
<td>Manage Chart of Accounts Value Set Values</td>
<td>Create groups of values assigned to a key flexfield segment.</td>
</tr>
<tr>
<td>Manage Account Hierarchies</td>
<td>Search, create, and edit hierarchical groupings of accounts.</td>
</tr>
<tr>
<td>Manage Accounting Calendars</td>
<td>Set up accounting calendar period details. Determine the total number, frequency, and duration of the accounting periods.</td>
</tr>
<tr>
<td>Manage Account Combinations</td>
<td>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 Global Payroll, for example, for your payroll liability, cash, cash clearing, default, and suspense accounts. As a best practice, use the same account numbers in Global Payroll and General Ledger. If you reconcile payments in Oracle Fusion Cash Management, create an account combination for reconciliation differences.</td>
</tr>
</tbody>
</table>

Ledger Setup Tasks

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

<table>
<thead>
<tr>
<th>Task</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Primary Ledgers</td>
<td>Create a ledger with a chart of accounts, accounting calendar, currency and subledger accounting method. If you are creating bank information, you must create a primary ledger.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Assign Legal Entities</td>
<td>Add the legal entities that use the ledger. 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.)</td>
</tr>
<tr>
<td>Specify Ledger Options</td>
<td>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.</td>
</tr>
<tr>
<td>Assign Balancing Segment Values to Legal Entities</td>
<td>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.</td>
</tr>
<tr>
<td>Assign Balancing Segment Values to Ledger</td>
<td>Optionally, assign specific primary balancing segment values to the primary and secondary ledgers to represent transactions for nonlegal entities, such as adjustments.</td>
</tr>
<tr>
<td>Manage Reporting Currencies</td>
<td>Review and update reporting currencies. Reporting currencies maintain and record subledger and general ledger journal entries in additional currencies.</td>
</tr>
<tr>
<td>Review and Submit Accounting Configuration</td>
<td>Submit your configuration.</td>
</tr>
<tr>
<td>Open First Period</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Payroll Setup Tasks for Subledger Accounting: 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 Fusion 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.

**Costing Payroll Options**

Before you create implementation projects, you select payroll feature choices, such as the choice to cost your payroll. Select one of the following options depending on whether implementers will need to view data predefined in Subledger Accounting for costing.

The following table shows how the payroll costing option you select determines which tasks for subledger accounting rules are included in the feature choice.

<table>
<thead>
<tr>
<th>Feature Choices</th>
<th>View Predefined Data</th>
<th>Integrate Payroll with Subledger Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Subledger Application and Accounting Method</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maintain Subledger Accounting Method</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**View Predefined Data**

The Define Subledger Application and Sources task list includes predefined data, such as 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. You can review this predefined information.

**Integrate Payroll with Subledger Accounting**

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.

<table>
<thead>
<tr>
<th>Page</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Account Rules</td>
<td>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.)</td>
</tr>
<tr>
<td>Manage Subledger Journal Entry Rules Sets</td>
<td>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.</td>
</tr>
</tbody>
</table>
Optional Tasks

Complete the following optional tasks.

<table>
<thead>
<tr>
<th>Page</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import Supporting Reference Initial Balances</td>
<td>Import source values for the balances maintained by the segments that store supporting reference balances.</td>
</tr>
<tr>
<td>Manage Description Rules</td>
<td>Define the rules for the descriptions that appear on the subledger journal entry at the header and the line level.</td>
</tr>
<tr>
<td>Manage Supporting References</td>
<td>Decide what additional source information to store about a subledger journal at the header or line level.</td>
</tr>
</tbody>
</table>

**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 a cost account as a priority account to cost the run results for the element eligibility record to only one account number.

You can override the costing of an element at the person level or element entry. For example, you might override the costing at a person level to split a person’s salary element between two cost centers. To temporarily override the element costing for one payroll period, you would override the element costing for the element entry.

When you create costing for elements, review the following points:

- Element eligibility records
- Costing type
- Costed input values
- Offset accounts
- Distributed costing
- Priority cost accounts

**Element Eligibility Records**

When you cost the run results for an element processed in a payroll run, you cost the element eligibility records. You cost all the element eligibility records of the
element, 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. The combination of primary and secondary classifications also determines which element template is used to create the elements.

When you create an element you specify at which employment level the element is attached. The element eligibility that makes the employee eligible for the element entry also determines the level of the costing hierarchy that the application uses when costing a run result.

Typically, earnings elements are created at the assignment or terms employment level and deduction elements at the payroll relationship level. Earnings usually have a costing type of Costed and the application checks all levels of the costing hierarchy for segments with account information. For elements created at the payroll relationship level, such as statutory deductions, the application skips the department, job, and position levels of the costing hierarchy, which usually include cost center account information, and checks the payroll, element eligibility, and person payroll relationship, and element entry levels only. Deductions usually have a costing type of Fixed Costed.

**Important**

As a guideline, if you require account information for deductions, such as cost center information, which is usually entered at the department, job, or position level, ensure that the structure of your cost allocation key flexfield should include segments at the element eligibility level to capture this information. Specify a Costing Type of Fixed Costed.

When you create an element, you create a base element. Some templates also create a related element to store the calculated results. For example, when the element template creates pretax, involuntary, voluntary deductions, it also creates a results element. For some countries, the template also creates a results element for earnings elements. As a guideline, if a results element is created, use the results element when processing balance adjustments and setting up costing for elements and persons; otherwise, use the base element.

**Note**

When creating element entries, the application always uses the base element.

**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 costing 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 in proportion to how the earnings are divided over cost.
accounts. It is sometimes used for complex overtime calculations, or for workers such as piece workers and drivers when productivity does not provide enough wages to satisfy guaranteed hourly minimum.

- **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 do not require cost overrides at other levels of the cost hierarchy, such as the job or position level. 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.

### Costed Input Values

When you create costing for an element eligibility record, you must indicate which input value to cost. Select the input value that contains the calculated monetary result. The input value may be called the Pay Value, but the one you select must correspond to the special purpose input value, which is designated as the primary output value.

### 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.

The costing processes calculate the costs for the distributed element and allocate 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 Cost Accounts**

Decide whether to use a priority cost account as a separate cost account to ensure that the same combination of account segments apply when the element eligibility record is costed. The cost results are allocated to one account and 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.

You might also use priority accounts to solve the problem of costing elements that require the same account combination when you do not want costing at a lower level, such as the department, job, position, or person level to override the costing.

**Payroll Cost Results: How They Are Calculated**

Payroll processes generate costing results and create journal entries used to record your labor costs. The decisions made while setting up costing affect payroll run cost results, such as the element classification costing options, the employment level of the element, the costing type for the element, the cost allocations, and the type of cost account. Payroll processes then create costing entries for run results and payments. For the payroll run results, the application builds the account number by checking each level of the costing hierarchy. For payment results, the application uses the account number for the payment source you specified.

**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.

- **Element's costing type**
  
  The costing options specify the costing type and which element input values to cost. You enter the costing options when you set up the element eligibility records by completing the information on the Costing tab of the Element Summary page or by entering the information on the
Manage Costing of Elements page. 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 in 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.

- **Employment level of elements**

  When you create an element you specify at which employment level the element entries are created. The element eligibility that makes the employee eligible for the element entry also determines the level of the costing hierarchy that the application uses when costing a run result.

  Typically, earnings elements are created at the assignment or terms employment level and deduction elements at the payroll relationship level. Earnings usually have a costing type of Costed and the application checks all levels of the costing hierarchy for segments with account information. For elements created at the payroll relationship level, such as statutory deductions, the application skips the department, job, and position levels of the costing hierarchy, which usually include cost center account information, and checks the payroll, element eligibility, and person payroll relationship, and element entry levels only. Deductions usually have a costing type of Fixed Costed.

- **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.

• 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.

How the Costing is Calculated

Payroll processes create 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. The levels are checked in the sequence given in the table. For example, Element Entry is the 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. When the costing process reaches the last level, the Payroll level, if the 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.

<table>
<thead>
<tr>
<th>Level of Costing Hierarchy</th>
<th>Accounts Checked for Costing Details</th>
<th>Costing Types Checked</th>
<th>Page Where Costing Details Are Managed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Entry</td>
<td>Cost</td>
<td>Fixed Costed, Costed, Distributed</td>
<td>Manage Element Entries</td>
</tr>
<tr>
<td>Person Element - Assignment</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person Element - Terms</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person Element - Payroll Relationship</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Assignment</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Terms</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Payroll Relationship</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Level of Costing Hierarchy</th>
<th>Sequence for Checking Costing Details</th>
<th>Current or Original Payroll Period Checked</th>
<th>Accounts Checked for Costing Details</th>
<th>Costing Types Checked</th>
<th>Page Where Costing Details Are Managed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retroactive Pay Element Entry</td>
<td>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.</td>
<td>Current</td>
<td>Cost</td>
<td>Fixed Costed, Costed, Distributed</td>
<td>Manage Element Entries</td>
</tr>
<tr>
<td>Retroactive Pay Element Eligibility</td>
<td>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.</td>
<td>Current</td>
<td>Cost</td>
<td>Fixed Costed, Costed, Distributed</td>
<td>Manage Costing of Elements</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>------</td>
<td>-----------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Element Entry</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Fixed Costed, Costed, Distributed</td>
<td>Manage Element Entries</td>
</tr>
<tr>
<td>Person Element - Assignment</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person Element - Terms</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person Element - Payroll Relationship</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Assignment</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Terms</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Person - Payroll Relationship</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing for Persons</td>
</tr>
<tr>
<td>Position - Assignment</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Positions</td>
</tr>
<tr>
<td>Position - Terms</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Positions</td>
</tr>
<tr>
<td>Job - Assignment</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Jobs</td>
</tr>
<tr>
<td>Job - Terms</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Jobs</td>
</tr>
<tr>
<td>Department - Assignment</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost, Default, suspense</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Departments</td>
</tr>
<tr>
<td>Department - Terms</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost, Default, suspense</td>
<td>Costed, Distributed</td>
<td>Manage Costing of Departments</td>
</tr>
<tr>
<td>Element Eligibility</td>
<td>Next level checked.</td>
<td>Original</td>
<td>Cost, Offset, Priority</td>
<td>Fixed Costed, Costed, Distributed</td>
<td>Manage Costing of Elements</td>
</tr>
</tbody>
</table>
### 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 distributed:

- **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 special purpose primary output value on the Manage Costing of Element page**
  
  When calculating the cost for the distributed element, the application uses the input value that has a special purpose definition of primary output value.

#### 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. As an example, 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, the application distributes the liability cost over the 2 remaining elements in proportion 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. The following calculations depend on whether you set up element eligibility costing for the distributed element.

- Costing specified for the distributed element
  
  The application adds the costing result proportionately to the elements in the distribution group using the standard costing hierarchy. When the process reaches the element eligibility level, the application replaces the account numbers for the segments of the distribution group elements with the account numbers 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 specified for the last segment for the distributed element is 5220, the payroll calculation process adds the amount of the distributed element to the overtime wage, and costs the result to account 50.053.5220.

- Costing not specified for the distributed element
  
  The application adds the costing result of the distributed element 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, the amount of the distributed element allocated to the overtime wage is 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.

<table>
<thead>
<tr>
<th>Account Classification</th>
<th>Account Name</th>
<th>Account Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities</td>
<td>Wages Payable</td>
<td>2110</td>
</tr>
<tr>
<td>Liabilities</td>
<td>Pension Payable</td>
<td>2150</td>
</tr>
</tbody>
</table>
Liabilities | Employee Pension Payable | 2151
---|---|---
Liabilities | Employee 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. It shows the percentage that the costed run result of each element contributes to the total for the distribution group.

<table>
<thead>
<tr>
<th>Elements in Distribution Group</th>
<th>Division</th>
<th>Department</th>
<th>Hours</th>
<th>Rate (USD)</th>
<th>Primary Output Value</th>
<th>Percentage of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Wages</td>
<td>10</td>
<td>120</td>
<td>30</td>
<td>10</td>
<td>300</td>
<td>61.2</td>
</tr>
<tr>
<td>Regular Wages</td>
<td>50</td>
<td>053</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>20.4</td>
</tr>
<tr>
<td>Overtime Wages</td>
<td>50</td>
<td>053</td>
<td>6</td>
<td>15</td>
<td>90</td>
<td>18.4</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Distributed Element</th>
<th>Distribution Group Element</th>
<th>Division</th>
<th>Department</th>
<th>Percentage of Cost</th>
<th>Distributed Amount (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Pension Tax</td>
<td>Regular Wages</td>
<td>10</td>
<td>120</td>
<td>61.2</td>
<td>18.60</td>
</tr>
<tr>
<td>Employer Pension Tax</td>
<td>Regular Wages</td>
<td>50</td>
<td>053</td>
<td>20.4</td>
<td>11.78</td>
</tr>
<tr>
<td>Employer Pension Tax</td>
<td>Overtime Wages</td>
<td>50</td>
<td>053</td>
<td>18.4</td>
<td>5.59</td>
</tr>
</tbody>
</table>

This table shows the costing entries calculated for the distributed element.

<table>
<thead>
<tr>
<th>Costing Entries</th>
<th>Distributed element</th>
<th>Input Value</th>
<th>Distributed Input Value</th>
<th>Account Name</th>
<th>Division Department Account</th>
<th>Debit (USD)</th>
<th>Credit (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Wages</td>
<td>Pay Value</td>
<td></td>
<td>Regular Wages</td>
<td>10.120.5110</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td></td>
<td></td>
<td>Wages Payable</td>
<td>00.000.2100</td>
<td></td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Regular Wages</td>
<td>Pay Value</td>
<td>Regular Wages</td>
<td>50.053.5110</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td>Wages Payable</td>
<td>00.000.2100</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overtime Wages</td>
<td>Pay Value</td>
<td>Overtime</td>
<td>50.053.5130</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td>Wages Payable</td>
<td>00.000.2100</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer Pension Tax</td>
<td>Employer Pension Tax</td>
<td>Liability Amount</td>
<td>Employer Pension Tax</td>
<td>10.120.5220</td>
<td>18.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td>Employer Pension Payable</td>
<td>00.000.2152</td>
<td>18.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer Pension Tax</td>
<td>Employer Pension Tax</td>
<td>Liability Amount</td>
<td>Employer Pension Tax</td>
<td>50.053.5220</td>
<td>11.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td>Employer Pension Payable</td>
<td>00.000.2152</td>
<td>11.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Pension Tax</td>
<td>Liability Amount</td>
<td>Employee Pension Payable</td>
<td>00.000.2000</td>
<td>30.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset</td>
<td>Wages Payable</td>
<td>00.000.2100</td>
<td>30.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Setting Up Distributed Costing for an Element: Worked Example

This example demonstrates how to set up costing for an element whose costs are added to the elements of a distribution group.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which element's costs are you distributing?</td>
<td>Employer Union Pension Expense element</td>
</tr>
<tr>
<td>When should the costing record take effect?</td>
<td>January 1, 2000</td>
</tr>
<tr>
<td>Which distribution group should carry the costs of the distributed element?</td>
<td>Pensionable Wages</td>
</tr>
<tr>
<td>Which input value of the distributed element does the costing process use to calculate costs?</td>
<td>Pay Value</td>
</tr>
<tr>
<td>What is the natural account number to use for the cost account segment?</td>
<td>5220 Employer Union Pension Expense account</td>
</tr>
<tr>
<td>Which offset account number is used to balance this cost account?</td>
<td>00.000.2152 Employer Union Pension Payable liability account</td>
</tr>
</tbody>
</table>

In this example, the payroll manager is managing the overhead costs for the employer portion of the pension liability. The payroll manager creates an element for the employer union pension expense, and creates a distribution...
group that includes all the employee’s wage elements. The payroll manager sets up costing so that the amount of the employer union pension expense calculated for the employee is distributed over the elements included in the distribution group. In calculating the costing, the costing process replaces the cost segments of the elements in the distribution group with the segments specified for the distributed element.

**Prerequisites**

1. Set up the Cost Allocation key flexfield.
2. Create costing for element eligibility records for each of the pensionable earnings elements, such as the regular wages and overtime wages.
3. Create an element group for the distribution on the Manage Object Groups page named Pensionable Wages that includes the pensionable earnings elements.

**Create Costing for a Distributed Element**

1. In the Accounting Distribution work area, click the Manage Costing of Elements task.
2. On the Manage Costing of Elements page, search for the element eligibility record for the Employer Union Pension element.
3. In the Search Results section, select the row for the Employer Union Pension and click **Create**.
4. Enter 1/1/00 as the effective start date when the costing is available for use, and then click **Continue**.
   As a best practice, enter the same effective start date you specified for the element eligibility record.
5. On the Create Costing of Element page, complete the fields in the Costing Information section, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costing Type</td>
<td>Distributed</td>
</tr>
<tr>
<td>Distribution Group</td>
<td>Pensionable Wages</td>
</tr>
<tr>
<td>Transfer to GL</td>
<td>Yes</td>
</tr>
</tbody>
</table>

6. In the Costed Input Values section, click **Add** to add a row for the input values. Complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Value</td>
<td>Pay Value</td>
</tr>
<tr>
<td>Costed</td>
<td>Yes</td>
</tr>
</tbody>
</table>

7. In the Cost Accounts section, select 5220 for the natural account segment. In this example, the only segment of the Cost Allocation key flexfield that must be entered is the natural account segment for the employer liability.
8. In the Offset Accounts section, complete the fields as shown in this table.
In this example, the costing for the offset account is to the payable liability account, and the segments for the Division and Department use values specified for the balance sheet.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division</td>
<td>00</td>
</tr>
<tr>
<td>Department</td>
<td>000</td>
</tr>
<tr>
<td>Natural Account</td>
<td>2152</td>
</tr>
</tbody>
</table>

9. Click **Submit**.

**Allocating Costs Across Accounts: Explained**

When a cost is shared, for example between regional districts, you can split the cost by specifying the percentage of the total cost charged to each district. You can create multiple cost accounts to allocate costs by percentage at the department, job, position, or person level, and at the element level for priority accounts.

**Allocating Costs**

You allocate costs to more than one account by adding cost accounts on the costing setup page that corresponds to the object, such as the department. For example, you can allocate the costs for a department to different cost centers by:

- Adding a cost account for each cost center
  You complete the cost allocation key flexfield segment that specifies the cost center account number.

- Specifying the percentage of the costs apportioned to each cost center
  Ensure that the percentages total 100 percent. If the total falls under 100 percent, the costing process distributes the remaining amount to a default account.

  Priority accounts for elements are an exception. If the total falls under 100 percent, the costing process derives the cost account for the remaining amount, by using the normal process of calculating the account number for each cost account segment.

**Allocating Department Costs to Different Accounts: Worked Example**

This example demonstrates how to allocate costing at the department level to two cost centers.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which department costs do you want to allocate over more than one cost account?</td>
<td>Information Services</td>
</tr>
</tbody>
</table>
Which cost segments are set up for the department level? | Cost center segment
--- | ---
Which cost centers are charged the cost? | Eastern District Office Cost Center 814390, Western District Office Cost Center 816560
What percentage is charged to each cost center? | 35 percent to the Eastern District Office cost center, 65 percent to the Western District Office cost center

In this example, the cost account includes a segment that captures the account number for each cost center. The payroll manager divides the costs of the Information Services department between the cost centers for the Eastern and Western District Offices.

### Splitting Department Costs Between Cost Centers

1. In the Accounting Distribution work area, click the Manage Costing of Departments task.
2. On the Manage Costing of Departments page, search for the Information Services department.
3. In the Search Results section, select the row for the Information Services department, and click Create.
4. In the Create Costing of Departments window, enter the effective date when the costing record takes effect.
5. On the Create Costing for Departments page, in the Cost Account section, click Add.
6. Click Add again to add a second row.
7. In the Cost Accounts table, complete the fields as shown in this table.
   
   If the total percentage does not equal 100, the costing process places the remaining unallocated amount in a default account during the payroll calculation.

<table>
<thead>
<tr>
<th>Percent</th>
<th>Cost Center Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Eastern District Office Cost Center 814390</td>
</tr>
<tr>
<td>65</td>
<td>Western District Cost Center 816560</td>
</tr>
</tbody>
</table>

8. Click Save.
9. Click Submit.

### Costing Setup for a Person: Explained

Manage costing for a person at the assignment, terms, and payroll relationship levels of the employment hierarchy. Costing elements at the employment level costs all the elements the person is eligible to receive at that level. If this costing does not apply to a specific element, you can override it by creating separate costing for the element. You can allocate the entire cost to a single account or divide the cost over several accounts.
Costing entered at the person level overrides the same segments defined at other levels of the costing hierarchy, except for priority accounts and cost accounts entered for element entries. You can refer to the tables in the contextual area to determine which segments are available for entry at each level of the costing hierarchy.

Most large enterprises do not capture costing at the person level because of the maintenance effort. Costing at a person level gives you flexibility when you need to closely monitor costs for a group of employees. For example, if you start a new project, and want to assess and track the costs incurred by the salaried employees reassigned temporarily to the project, you might set up costing at the person level for these employees.

**Setting Up Costing for a Person: Worked Example**

This example demonstrates how to allocate costing at the assignment level for a person who divides their time between two managers at different cost centers. This example also shows how to override costing at the assignment level for an element so that it is costed in its entirety.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long will the employee split the time between cost centers?</td>
<td>January 1, 2013 to June 30, 2013</td>
</tr>
<tr>
<td>What percentage of the employee’s costs are allocated to each cost center?</td>
<td>40 Percent to Sales Cost Center 4153360 Percent to Marketing Cost Center 41577</td>
</tr>
<tr>
<td>Should any elements not be divided between the two cost centers?</td>
<td>Parking Allowance</td>
</tr>
</tbody>
</table>

In this example, Joe creates presentations for the marketing division. You learn that for the next 6 months Joe will spend 40 percent of his time creating presentations for the sales division. The sales and marketing managers have different cost centers. You must split the costs for Joe’s assignment between the two cost centers, except for Joe’s parking allowance, which you continue to cost to the marketing division. First you enter the cost centers and percentages for costing the assignment, then you create override costing for the Parking Allowance element so that its costs are allocated to a single cost center.

**Create Costing for the Assignment**

1. In the Accounting Distribution work area, click the Manage Costing for Persons task.
2. On the Manage Costing for Persons page, search for Joe’s record.
3. In the Search Results section, click Joe’s name.
4. On the Manage Costing for a Person page, in the Costing for a Person Overview section, select Joe’s assignment.
5. From the Actions menu, select **Create Costing**.
6. In the Create Costing dialog, enter January 1, 2013 for date the costing takes effect.
7. In the Create Cost Accounts: Assignment section, click **Add**.

8. Click the **Add** again to add a second row.

9. In the Create Cost Accounts table, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Percent</th>
<th>Cost Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>41533</td>
</tr>
<tr>
<td>60</td>
<td>41577</td>
</tr>
</tbody>
</table>

10. Click **Save**.

**Create Costing for an Element**

1. In the Costing for a Person Overview section, select Joe's assignment.

2. From the Actions menu, select **Create Costing of Element**.

3. In the Create Costing window, enter January 1, 2013 as the date the costing takes effect.

4. In the Create Cost Accounts: Assignment section, select the Parking Allowance element.

5. In the Create Cost Accounts: Assignment section, click **Add**.

6. In the Create Cost Accounts table, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Percent</th>
<th>Cost Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>41577</td>
</tr>
</tbody>
</table>

7. Click **Save**.

8. Click **Submit**.

The costing remains in effect until you end the record with the date the allocation no longer applies.

**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

Manage object groups from the Payroll Calculation work area. Load a batch of object groups using the batch loader from the Payroll Administration work area or the Data Exchange work area.

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 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.

<table>
<thead>
<tr>
<th>Method</th>
<th>Parameter Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person submitting the flow enters the lookup value from a smart list or choice list</td>
<td>Bind to Flow Parameter</td>
</tr>
<tr>
<td>Application derives the value from existing tables, such as the value for the payroll statutory unit</td>
<td>Bind to Flow Task Parameter or Bind to Context</td>
</tr>
<tr>
<td>Application obtains the value based on a Post SQL process, such as a consolidation group</td>
<td>Post SQL</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Parameter Basis</th>
<th>Description</th>
<th>Basis Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Specified Value</td>
<td>Assigns a specific value to the parameter.</td>
<td>Value is entered or selected by user.</td>
<td>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.</td>
</tr>
<tr>
<td>Bind to Context</td>
<td>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.</td>
<td>Value is based on the payroll flow, payroll task, or the Request. The application automatically generates the value.</td>
<td>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.</td>
</tr>
<tr>
<td>Bind to Flow Parameter</td>
<td>Derives the value from one of the flow parameter values.</td>
<td>Value is selected from the flow parameters.</td>
<td>Bind parameters to the flow that several tasks share to avoid multiple occurrences of the same parameter.</td>
</tr>
<tr>
<td>Bind to Flow Task Parameter</td>
<td>Binds the value to the output of the previous task.</td>
<td>Value is selected from the previous task's parameters.</td>
<td>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.</td>
</tr>
<tr>
<td>Bind to Task Parameter</td>
<td>Resolves the value for the task parameter.</td>
<td>Value is selected from the current task's parameters.</td>
<td>If several tasks share a parameter, such as a start date, but one task requires a different date, bind the parameter to the task.</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Null</td>
<td>Stops the application from generating a parameter value when the task executes.</td>
<td>Parameter generated by the application is blank.</td>
<td></td>
</tr>
<tr>
<td>Post SQL Bind</td>
<td>Calculates the parameter but does not display it on the user interface.</td>
<td>SQL statement</td>
<td>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. Predefined tasks such as Costing of Payments and Gross-to-Net reports determine the Basis Value for the Consolidation Group using Post SQL bind.</td>
</tr>
<tr>
<td>SQL Bind</td>
<td>Before the parameter is rendered the value is calculated and displayed on the user interface.</td>
<td>SQL statement</td>
<td>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. Another example of the SQL bind is to prompt the task owner to enter a reason for a corrective action, such as a QuickPay.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What activities do you want to include in the flow pattern?</td>
<td>Calculation and Payment activities</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Information</td>
<td>Flow Pattern</td>
<td>InFusion Reissue Check</td>
</tr>
<tr>
<td>Activities</td>
<td>Activities to Include</td>
<td>Payment</td>
</tr>
<tr>
<td>Tasks</td>
<td>Available Tasks</td>
<td>Void Payment, Generate Check Payments, Verify a Payment</td>
</tr>
</tbody>
</table>

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.


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.
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Void Payment</td>
<td>Start Check Number, End Check Number, Process Configuration Group, Process Date, Payroll Process, Reason</td>
</tr>
</tbody>
</table>

**Note**

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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>No</td>
</tr>
<tr>
<td>Display Format</td>
<td>Text</td>
</tr>
<tr>
<td>Lookups</td>
<td>blank</td>
</tr>
<tr>
<td>Parameter Basis</td>
<td>Use Specified Value</td>
</tr>
<tr>
<td>Basis Value</td>
<td>InFusion Process Configuration Group</td>
</tr>
</tbody>
</table>

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**.


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, create, or later edit a payroll flow pattern, 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 or copy, 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, because the application
supplies the value.

The following table lists the values to enter for the task parameter details for the
Calculate Payroll task so that the Process Configuration Group is not manually
entered when submitting the payroll flow.

<table>
<thead>
<tr>
<th>Parameter Detail</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>No</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Parameter Detail</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Format</td>
<td>Text</td>
</tr>
<tr>
<td>Lookup</td>
<td>blank</td>
</tr>
<tr>
<td>Usage</td>
<td>Input Parameter</td>
</tr>
<tr>
<td>Parameter Basis</td>
<td>Bind to Flow Parameter</td>
</tr>
<tr>
<td>Basis Value</td>
<td>Reason</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which role should own the Verify Prepayments Result task?</td>
<td>Payroll Manager Operations</td>
</tr>
<tr>
<td>When does the task become overdue?</td>
<td>One day before the process date</td>
</tr>
</tbody>
</table>
Prerequisites

1. Create a QuickPay flow pattern by copying the predefined QuickPay flow pattern, entering a name for the flow pattern and the legislative data group.

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due Date</td>
<td>Process Date</td>
</tr>
<tr>
<td>Offset</td>
<td>-1</td>
</tr>
</tbody>
</table>

9. In the Notifications region, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Task Start Notification</td>
<td>Yes</td>
</tr>
<tr>
<td>Overdue Notification</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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 predefined flow pattern?

You cannot edit predefined single or composite flow patterns, but you can edit payroll flow patterns that you copy or 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.

**Note**

Entering a value for this profile option is a required step.

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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Values</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Buffer Size</td>
<td>Used for array inserts and updates of latest balances, based on one row per balance.</td>
<td>Maximum: 1000. Minimum: 1.</td>
<td>500</td>
</tr>
</tbody>
</table>

**Note**

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.

<table>
<thead>
<tr>
<th>Shuffle Chunk Processing</th>
<th>Random processing of order chunks for assignment actions.</th>
<th>Yes, No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chunk Size</td>
<td>Number of payroll relationship actions processed together.</td>
<td>Maximum: 16000. Minimum: 1.</td>
<td>20</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default Value</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cost Buffer Size</td>
<td>Used for array insert and select statements when calculating the costing of the payroll run results.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Element Entry Buffer Size</td>
<td>Buffer size used in the initial array selects of element entries, element entry values, run results, and run result values per assignment.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Logging Area</td>
<td>Area where code logging can be performed. The values correspond to c-code entries in the form PY_ENTRY (env, pyippppr); where pyippppr is the functional area that will have logging enabled.</td>
<td></td>
<td><strong>Note</strong> 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.</td>
</tr>
<tr>
<td>Assignment ID to End Logging</td>
<td>Assignment ID that ends logging.</td>
<td></td>
<td>All assignments</td>
</tr>
<tr>
<td>Assignment ID to Start Logging</td>
<td>Assignment ID that starts logging.</td>
<td></td>
<td>All assignments</td>
</tr>
<tr>
<td>Logging Category</td>
<td>Helps investigates problems with large volumes of detailed data. GMPE or blank for no logging. You can specify multiple values.</td>
<td></td>
<td>No logging</td>
</tr>
<tr>
<td>Maximum Number of Payroll Relationship Actions to Roll Back</td>
<td>Number of payroll relationship actions that can be rolled back, when rolling back a process.</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Maximum Errors Allowed</td>
<td>Number of payroll relationship actions that can be rolled back, when rolling back a process.</td>
<td>0</td>
<td>CHUNK_SIZE or 20</td>
</tr>
<tr>
<td>Maximum Iterations Allowed per Run Action</td>
<td>Maximum number of iterations allowed per run action within Net to Gross calculations within the Payroll Run.</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Notifications Expiration Offset</td>
<td>Number of days before a payroll flow notification is automatically deleted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process Timeout</td>
<td>Number of minutes before the Run Balance Generation process times out.</td>
<td>0</td>
<td>If not specified, no timeout limit is enforced.</td>
</tr>
<tr>
<td>Remove Report Assignment Actions</td>
<td>Removes report processing actions after reports are generated.</td>
<td>Yes, No</td>
<td>Yes</td>
</tr>
<tr>
<td>Run Result Buffer Size</td>
<td>Used for array inserts and updates, based on 1 row for each payroll run result.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Override Location for Tax Libraries</td>
<td>Directory location for Quantum tax libraries. There are no set values. Values for this parameter would be directory structures on the client site.</td>
<td></td>
<td>$VERTEX_TOP/lib</td>
</tr>
</tbody>
</table>
| Accounting Date for Transfer to General Ledger      | The date earned or the process date of the payroll run that is used to transfer and post journal entries for costing results to Oracle Fusion General Ledger.                                                                 | E = Date Earned  
P = Process Date   | 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.

**Note**
Using threads and subprocesses may also improve performance if you are using Oracle Fusion Global Payroll Interface.

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.

*Note*

This does not apply to all processes, such as Generate Check Payments and Retroactive Pay.

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.

*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.

**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:

<table>
<thead>
<tr>
<th>Parameter Value</th>
<th>Logging Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Balance Information.</td>
<td>Provides output information that shows the creation and maintenance of balances used during payroll processing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>C cache structures information.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Element entry information.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>Formula information.</td>
<td>Provides output information that shows details of formula execution, including formula contexts, inputs, and outputs.</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>General logging information.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>Balance output information.</td>
<td>Provides output information that shows details of values written to the database from the balance buffers.</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Balance fetching information.</td>
<td>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.)</td>
</tr>
<tr>
<td>M</td>
<td>Entry or exit routing information.</td>
<td>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.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>P</td>
<td>Performance information</td>
<td>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.</td>
</tr>
<tr>
<td>Q</td>
<td>C cache query information.</td>
<td>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.</td>
</tr>
<tr>
<td>R</td>
<td>Run results information.</td>
<td>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.</td>
</tr>
<tr>
<td>S</td>
<td>C cache ending status information.</td>
<td>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.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Explanation</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>T and Z</td>
<td>PL/SQL detail and PL/SQL output.</td>
<td>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.</td>
</tr>
<tr>
<td>V (USA and Canada only)</td>
<td>Vertex tax calculation information.</td>
<td>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.</td>
</tr>
</tbody>
</table>

**FORMULA EXECUTION LOGGING**

Formula execution logging is the code area where logging is performed. This 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. The default is no logging.

**Note**

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.

Here are the values that you can use for formula execution logging:

- d = database item cache access
- D = database item cache dump
- f = formula cache access
- F = formula cache dump
- $i =$ formula input/output values
- $w =$ working storage area access
- $W =$ working storage area dump
- $n =$ nested calls
- $c =$ change contexts
- $s =$ SQL execution (database item and PLSQL formula function calls)
- $m =$ miscellaneous
- $T =$ trace (very large level that provides the inputs and outputs of every call made when executing a formula)
- $1 =$ level 1 (combination of $i$, $m$, $f$, and $C$)
- $2 =$ level 2 (combination of 1, $d$, $w$, $c$, and $n$)
- $3 =$ level 3 (combination of 2, $D$, $W$, and $s$)
- $4 =$ level 4 (combination of 3 and $F$)
- $5 =$ level 5 (combination of 4 and $T$)

**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.

**Manage and Load Batches for Payroll**

**Payroll Data Loading: Overview**

You can load data for initial migration or mass data entry using the following tools: payroll batch loader, HCM Data Loader, and web services. You can also automate the regular import of time cards, absence entries, and pension enrollments using the inbound interfaces provided for each of these types of data.

This topic provides an overview of your options to meet the following data loading requirements:

- Initial migration of data for implementation
- Exporting and importing setup data between test and production environments
• Ongoing data loading

Initial Migration of Data for Implementation

The following table contrasts the type of data you typically migrate and the actions you perform to load that data.

<table>
<thead>
<tr>
<th>Loader</th>
<th>Objects</th>
<th>Task or Task List</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM Data Loader</td>
<td>A wide range of HCM data, including workforce structures such as business units, element entries, salaries, salary bases, and people.</td>
<td>Define Batch Data Loads task list in the Setup and Maintenance work area.</td>
<td>Import the data from files to staging tables for validation, then load the data to the application tables.</td>
</tr>
<tr>
<td>Payroll Batch Loader</td>
<td>Payroll setup data, including elements, balances, balance groups, payroll definitions, object groups, user-defined tables, and fast formula globals. Worker data such as element entries, time and absence entries, initial balance values, assigned payrolls, and bank account details.</td>
<td>Batch Loader task in the Payroll Administration or Data Exchange work areas.</td>
<td>Enter the data in a workbook format that is specific to the object type, save your entries to staging tables, and transfer the data batch to the application tables.</td>
</tr>
</tbody>
</table>

Exporting and Importing Setup Data Between Environments

Typically, your initial migration of data is to a test environment. After successful testing, you can move the data to your production environment by exporting then importing a configuration package in the Setup and Maintenance work area. Use the Manage Configuration Packages task.

Ongoing Data Loading

You can use the payroll batch loader to load element entries, time cards, and other payroll data on an ongoing basis. You can use the HCM Data Loader or HCM spreadsheet loaders to load other HR, compensation, and benefits data, such as benefit enrollments, stock grants, and locations.

Specific interfaces are provided for loading the following types of data for payroll processing:

• Time card entries
• Absence entries
• Pension enrollments

Setup involves creating an element and mapping the element to the data source, such as an absence plan or time type. Transfer of data may be automated through web services or require submission of a process to load the data from an XML file, depending on the source application.
To meet other data loading requirements, you can create, update, and delete objects directly in application tables using web services. Details of the services are provided in Oracle Enterprise Repository (https://fusionappsoer.oracle.com).

**Manage Batch Uploads With Payroll Batch Loader**

**Setting Up Oracle ADF Desktop Integration for Excel: Points to Consider**

To use a desktop integrated Excel workbook to create or edit records that you can upload to Oracle Fusion Applications, you must fulfill software requirements, install a desktop client, and set up Microsoft Excel.

**Software Requirements**

You must have installed:

- Microsoft Excel 2007 or 2010
- Microsoft Windows XP Professional, Vista - Business, Vista - Ultimate, or 7

**Desktop Client Installation**

Install the Oracle ADF Desktop Integration Add-in for Excel, which is a desktop client that enables you to use the integrated workbooks that you download from Oracle Fusion Applications. If the client installer is not available under Navigator - Tools, then ask your administrator where you can find the installer.

**Important**

Make sure you are signed in to your computer with your account when you perform the installation. For example, you cannot have someone else sign in as an administrator and make the installation available for all users of your computer.

Depending on the setup of the client installer itself, you may get automatic updates when new versions of the client are available. If you do not get automatic updates, then you need to reinstall the client whenever the client version changes. You can find your client version in the About section of the workbook and ask your administrator if that version is the latest.

If the location of the client installer ever changes, then:

- You will not receive automatic updates.
- You must uninstall the client from your computer and use the installer from the new location.

**Note**

Any time you need to reinstall the client, you must first uninstall and then perform the install procedure again.

To uninstall, use the Add or Remove Programs dialog box from the Control Panel to remove the Oracle ADF Desktop Integration Add-in for Excel client.
Microsoft Excel Setup

Perform the following steps in Microsoft Excel only once, even if you reinstall the desktop client.

1. Click the Microsoft Office button, and click the Excel Options button.
2. In the Excel Options dialog box, select the Trust Center tab, and click Trust Center Settings.
3. In the Trust Center dialog box, select the Macro Settings tab, and select the Trust access to the VBA project object model check box.

Note

The exact steps can vary depending on your version of Microsoft Excel.

Working in Desktop Integrated Excel Workbooks: Points to Consider

Where available, you can download a desktop integrated Microsoft Excel workbook in which you can create or edit records. While you work in the integrated workbook, no changes are actually made in Oracle Fusion Applications; your edits take effect only after you upload the records back. As you work, keep in mind conventions and statuses used in the file, requirements for search, possible need to refresh, and things you should not do.

Conventions

Some column headers in the integrated workbook might include [..]. This means that you can double-click or right-click within any cell in the column to open a dialog box that lets you select a value to insert into the cell.

Statuses

The worksheet status in the header area applies to the entire worksheet, or tab, within the integrated workbook. Likewise, the table status applies to only the corresponding table. The row status applies to the state of the row within the workbook, not to the record itself. For example, if the row is an expense item, the status does not mean the status of the expense item itself, but of the data in the row, in the context of the workbook.

Search

Some integrated workbooks have search functionality. For the search to work within the workbook, you must sign on to Oracle Fusion Applications.

Refresh

After you upload to Oracle Fusion Applications, you might need to refresh the data in the table if your changes are not reflected. You can use the refresh option for the table, or perform a filter or search on the table.
What You Should Not Do

To make sure that the upload to Oracle Fusion Applications goes smoothly, do not:

- Rename text from the integrated workbook, for example the worksheet or tab names.
- Use your own styles in the file.
- Add columns.
- Delete any part of the template, for example columns.
- Hide required columns and status columns or headers.

Payroll Batch Upload Tasks: Explained

Batch loader workbooks are a fast way to upload batches of data. You load data into staging tables using the generic batch loader then transfer the batch into live HCM tables.

Batch uploads can be created, based on predefined templates, to load the following data:

- Balances
- Balance groups
- Elements
- Element entries
- Payroll definitions
- Payroll relationships
- Personal payment methods
- Bank information for electronic funds transfer payments
- Fast formula global values
- Object groups

This figure illustrates the tasks to complete to create and upload data using the batch upload workbooks.
You can access the batch loader in the Data Exchange work area. Payroll managers and administrators can also access the batch loader and batch processes in the Payroll Administration work area, or using the Enter Batch task if it is included in a flow.

**Create Batch**

Create a batch directly on the batch loader workbook or through the Create Batch process run on the Submit a Process or Report page in the Payroll Calculation work area. Enter a batch manually by adding rows for each line of data for the batch needed. Create a batch through a process to automatically add rows to the workbook for the people and elements in which you want to add data. Prior to running the Create Batch process you must create object groups that contain the elements or people needed in the batch. The create batch process can only run for element entries and balances.

**Enter Batch**

You enter data in columns, which vary depending on the type of batch you are creating. Add rows for each line of data that you need to add.

**Transfer Batch**

A batch exists in the temporary staging tables until you run the Transfer Batch process to create entries in the HCM table in which the data is applicable. Access the Submit a Process or Report task from the Payroll Administration work area to run the Transfer Batch process.

**Review Batch**

Once you have transferred the batch, access the Batch Message Sheet, on the batch loader workbook, to view any messages that occurred from the transfer process being run. If an error occurred, correct the problem causing the error and rerun the Transfer Batch process.

**Purge Batch**

You purge batch data once it is transferred successfully to the applicable HCM tables. You run the Purge Batch process on the Submit a Process or Report page. You can purge a batch at any time.

**Payroll Batch Load Process: Explained**

The Payroll batch loader imports data from integrated Microsoft Excel workbook templates into the staging tables and transfers that data into the application.

This topic describes how to populate the workbook manually, but there are other options:

- Submit the Create Batch process to create a batch for all members of an object group.
- Submit the Create Batch from File process to create a batch from data in a file.
- Use the Manage Batch Uploads web service to create a batch.
Depending on the data type that you want to load, there may be several upload tasks available, each with a template that supplies all of the required and optional columns you can use.

**Tip**

Some upload tasks have interdependencies and must be performed sequentially. It is recommended that you create separate workbooks for each of these tasks, for each legislative data group where you are adding data for related objects, to ensure that these dependencies are intact. For example, banks and branches are related, so you first create banks in one workbook, and then create the branches together in the next workbook.

The basic process for importing data using the Payroll batch loader is:

1. For each task, populate the batch loader workbook and import the data into the staging tables.
2. Transfer the uploaded data from the staging tables.
3. Verify the import results.

**Prerequisites**

Before you can populate worksheets, you must have installed Oracle ADF Desktop Integration for Excel.

**Populating the Workbook**

When you download the batch loader workbook, you use it to enter your data. The following steps show how to download the workbook, add your data, and upload the data to the staging tables.

**Important**

All data that you create should be unique for the given legislative data group that you select in the batch header.

1. In the Payroll Administration work area, click **Batch Loader**, and then click **Download**. Open the workbook and sign in.
2. On the last row of the Batch Header Sheet tab, in the Batch Name field, enter a name for the batch.
   
   This name is what you use when running the transfer process to move the data from the staging tables.
3. In the same row, select the legislative data group from the list, then click **Save**.
4. On the Batch Content Sheet tab, under Batch Contents Action, click **Add**, and then select the task you want.
5. In the Batch Content Line Details section, insert rows for each data item that you want to add and enter all required values.
6. Click **Save** and leave the workbook open.
Transferring the Batch

After you have saved your data to the staging tables, you submit a process to transfer the batch.

The following steps show how to move the data from the staging tables and verify that the transfer was successful.

1. In the Payroll Administration work area, click Submit a Process or Report.
2. Select your legislative data group.
3. In the Flow Pattern column, select Transfer Batch, and then click Next.
4. In the Payroll Flow field, enter a name for the process. You can use this name later when looking for process status.
5. In the Batch field, search for and select the batch name you want to transfer, and then click Next.
7. On the Review page, click Submit, and then click OK and View Checklist.
8. Click Refresh until the Transfer Batch process status displays as complete.
9. In the workbook, display the Batch Messages Sheet, then display the Batch Content Sheet. The status should be Transferred.
10. Display the Batch Message Sheet. You should see no error messages.

Payroll Batch Statuses: Explained

Batches that you manage in workbooks from the Batch Loader page include a status, displayed on the Batch Header Sheet. The status depends on the status of the batch header, all the batch lines, and any control totals specified for the batch. On the Batch Header Sheet, you can see the following status values:

- Valid
- Transferred
- Transfer incomplete
- Unprocessed
- Error

Valid

When the status is marked as Valid, all of the lines, control totals, and header are valid.

Transferred

When the status is marked as Transferred, all of the lines, control totals, and header have been transferred from the staging tables to the live HCM tables.
Transfer Incomplete

When the status is marked as Transfer Incomplete, the header and control totals have been transferred, along with some of the lines.

Unprocessed

When the status is marked as Unprocessed, at least one line, control total, or the header is unprocessed, and no lines have been transferred.

Error

When the status is marked as Error, the header has not been transferred and at least one line, control total, or the header is in error. Go to the Batch Message Sheet to view details about the content lines in error.

Creating Element Entries Using the Batch Loader: Worked Example

This example demonstrates how to create element entries for bonus earnings for two workers in the InFusion US Sun Power legislative data group using the batch loader. Nichole is an executive and receives a bonus that is ten percent of her salary. Joseph is an instructor and receives a fixed amount of 500.

There are three sheets associated with the batch loader: Batch Header Sheet, Batch Content Sheet, and Batch Messages Sheet.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of data do you want to load in the workbook?</td>
<td>Element Entry</td>
</tr>
<tr>
<td>What is the legislative data group for the batch?</td>
<td>InFusion US Sun Power</td>
</tr>
<tr>
<td>What is the name to assign to the batch?</td>
<td>InFusion Bonus</td>
</tr>
<tr>
<td>What is the name of the bonus element to use for the batch?</td>
<td>Bonus - Annual</td>
</tr>
<tr>
<td>Who are the workers to receive the bonus element entries?</td>
<td>Nichole Brown and Joseph Frederickson</td>
</tr>
</tbody>
</table>

Prerequisites

This worked example assumes that the following prerequisites have already been met:

1. You have installed Oracle ADF Desktop Integration Runtime Add-in for Excel.
2. A bonus element has been created that is set at the assignment level for element entries.
3. You know the assignment numbers of the workers to receive the bonus element entries.
Creating a Batch Header

1. From the Payroll Administration work area, select the Batch Loader task.
2. On the Batch Loader page, click **Download**.
3. After the DesktopGenericBatch.xlsx file downloads, open the file.
4. When prompted to connect, click **Yes**.
5. In the Login dialog box, enter your user ID and password, and then click **Sign In**.
6. Navigate to the Batch Header Sheet at the bottom of the workbook.
7. In the Batch Name column of the Search Results section, enter InFusion Bonus.
8. In the Legislative Data Group list, select **InFusion US Sun Power**.
9. Click **Save**.
10. In the Upload Options dialog box, accept the default selection and click **OK**.

Once your selections are saved, the Batch Status text for that row displays that the row inserted successfully.

Creating Batch Content

1. On the Batch Header Sheet, double-click the batch name **InFusion Bonus** to prepare for data entry.
2. Navigate to the Batch Content Sheet.
3. Under Batch Contents Action, click **Add**.
4. Search for and select the **Bonus - Annual** task name, and then click **OK**.

The workbook should update to display the columns for the selected element, ready for data entry.
5. In the Batch Line Content Details section, enter the values for Nichole as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>1</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>2012-12-15</td>
</tr>
<tr>
<td>Assignment Number</td>
<td>E1000842</td>
</tr>
<tr>
<td>Percentage</td>
<td>10</td>
</tr>
<tr>
<td>Legislative Data Group</td>
<td>InFusion US Sun Power</td>
</tr>
</tbody>
</table>

6. Right-click the next row number and insert a row for Joseph’s details.
7. Enter the values for Joseph as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>2</td>
</tr>
</tbody>
</table>
Define Payroll

Effective Start Date 2012-12-15
Assignment Number E1003564
Pay Value 500
Legislative Data Group InFusion US Sun Power

8. Click Save.

9. In the Upload Options dialog box accept the default selection and click OK.

Important
Keep the workbook open. You will verify the element entries were transferred in the final step of this example.

Transferring the Batch
1. From the Payroll Administration work area, click Submit a Process or Report.

2. In the Legislative Data Group field, select InFusion US Sun Power.

3. In the Flow Pattern column, select Transfer Batch, and then click Next.

4. In the Payroll Flow field, enter a name for the process, such as InFusion Bonus Batch.

5. In the Batch field, search for and select InFusion Bonus, and then click Next.


7. On the Review page, click Submit.

8. Click OK and View Checklist.

9. Click Refresh until the Transfer Batch process status displays as complete.

Verifying the Transfer
1. In the workbook, navigate to the Batch Messages Sheet.

2. Navigate to the Batch Content Sheet.
    You should see the status displayed as transferred.

3. Navigate back to the Batch Message Sheet.
    You should see no error messages. The element entries are now attached to Nichole and Joseph. You can use the Manage Element Entries task to find the workers and see the new element entries.

Creating Globals Using the Batch Loader: Worked Example

This example demonstrates how to enter globals for two types of bonuses in the InFusion US Sun Power legislative data group using the batch loader workbook. The bonus for executives is initially set at ten percent. The bonus for instructors is initially set at a fixed value of 500. These values can later be changed in the global so that the same value is applied in any formulas that use them.
There are three sheets associated with the batch loader: Batch Header Sheet, Batch Content Sheet, and Batch Messages Sheet.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of data do I want to load using the workbook?</td>
<td>Fast Formula Global</td>
</tr>
<tr>
<td>What is the legislative data group for the batch?</td>
<td>InFusion US Sun Power</td>
</tr>
<tr>
<td>What is the name to assign to the batch?</td>
<td>InFusion Globals</td>
</tr>
<tr>
<td>What are the globals to create?</td>
<td>Executive Bonus for a percentage and Instructor Bonus for a fixed amount.</td>
</tr>
</tbody>
</table>

Prerequisite

This worked example assumes that the following prerequisite has already been met:

1. You have installed Oracle ADF Desktop Integration Runtime Add-in for Excel.

Creating a Batch Header

1. From the Payroll Administration work area, select the Batch Loader task.
2. On the Batch Loader page, click Download.
3. After the DesktopGenericBatch.xlsx file downloads, open the file.
4. When prompted to connect, click Yes.
5. In the Login dialog box, enter your user ID and password, and then click Sign In.
6. Navigate to the Batch Header Sheet at the bottom of the workbook.
7. In the Batch Name column of the Search Results section, enter InFusion Globals.
8. In the Legislative Data Group list, select InFusion US Sun Power.
9. Click Save.
10. In the Upload Options dialog box, accept the default selection and click OK.

Once your selections are saved, the Batch Status text for that row displays that the row inserted successfully.

Creating Batch Content

1. On the Batch Header Sheet, double-click the batch name InFusion Globals to prepare for data entry.
2. Navigate to the Batch Content Sheet.
4. In the Task Name field, enter Fast Formula Global.
5. Click Search.
6. Select Fast Formula Global, and then click OK.
The workbook should update to display the columns for the selected task, ready for data entry.

7. In the Batch Line Content Details section enter the values for each global as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>First Global Value</th>
<th>Second Global Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>2011-01-01</td>
<td>2011-01-01</td>
</tr>
<tr>
<td>Effective End Date</td>
<td>2020-12-31</td>
<td>2020-12-31</td>
</tr>
<tr>
<td>Value</td>
<td>.10</td>
<td>500</td>
</tr>
<tr>
<td>Data Type</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Name</td>
<td>Executive Bonus</td>
<td>Instructor Bonus</td>
</tr>
</tbody>
</table>

Note
To insert more lines for additional global values, right-click on the row number where you want to add a row, and then select Insert.

8. Click Save.

9. In the Upload Options dialog box accept the default selection and click OK.

Important
Keep the workbook open. You will verify the globals were transferred in the final step of this example.

Transferring the Batch
1. From the Payroll Administration work area, click Submit a Process or Report.
2. In the Legislative Data Group field, select InFusion US Sun Power.
3. In the Flow Pattern column, select Transfer Batch, and then click Next.
4. In the Payroll Flow field, enter a name for the process, such as InFusion Globals Batch.
5. In the Batch field, search for and select InFusion Globals, and then click Next.
7. On the Review page, click Submit.
8. Click OK and View Checklist.
9. Click Refresh until the Transfer Batch process status displays as complete.

Verifying the Transfer
1. In the workbook, navigate to the Batch Messages Sheet.
2. Navigate to the Batch Content Sheet.
   You should see the status displayed as transferred.

3. Navigate back to the Batch Message Sheet.
   You should see no error messages. The new globals are now available for use in your formulas.

**Payroll Batch Loader Workbooks for Bank Data**

You can use the Payroll batch loader to import bank data from integrated Microsoft Excel workbook templates into the staging tables and transfer that data into the application. This topic explains the tasks you can add to the workbook and the columns you can complete for each task.

This table explains the four tasks that you can add to the workbook that load bank information.

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Bank</td>
<td>Create a bank name and optional bank code, making it available when creating bank branches.</td>
</tr>
<tr>
<td>Create Bank Branch</td>
<td>Create a branch of a bank that already exists. Branch data includes name, number, and identifiers for electronic funds transfers.</td>
</tr>
<tr>
<td>Create External Bank Account</td>
<td>Create a bank account, based on an existing bank and branch, to use in personal payment methods.</td>
</tr>
<tr>
<td></td>
<td><strong>Restriction</strong></td>
</tr>
<tr>
<td></td>
<td>Bank account numbers of source accounts for payments to workers cannot be created using this task.</td>
</tr>
<tr>
<td>Create Personal Payment Method</td>
<td>Create personal payment methods details, such as allocation of electronic funds transfer payments to a worker.</td>
</tr>
<tr>
<td></td>
<td><strong>Tip</strong></td>
</tr>
<tr>
<td></td>
<td>To create personal payment details for external payees, use the Manage Third-Party Payment Methods task in the Payment Distribution work area. There is no batch loader task to manage payments to third parties.</td>
</tr>
</tbody>
</table>

These four tasks have interdependencies. It is recommended that you create separate workbooks for each of these tasks, for each legislative data group where you are adding bank information, to ensure that these dependencies are intact. For example, you can first create multiple banks in one workbook, then create all of the branches together in the next workbook, and so on.

**Bank Columns**

The Create Bank task workbook uses the following columns to create a new bank name and optional bank code identifier.
### Bank Branch Columns

The Create Bank Branch task workbook uses the following columns to create branch information for a specified bank name.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and continue sequentially for subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of the bank to create.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Important</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When adding bank names, ensure that a bank with the same name does not already exist. Also, ensure that you follow any naming conventions that may be in place.</td>
</tr>
<tr>
<td>Bank Number</td>
<td>No</td>
<td>VARCHAR2(400)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bank number of bank to create. Bank number validation varies depending on country-specific rules.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and continue sequentially for subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of the name of the bank for the branch to create.</td>
</tr>
<tr>
<td>Bank Branch Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of branch to create. Must be unique for the bank name and legislative data group that you select in the batch header.</td>
</tr>
<tr>
<td>Column</td>
<td>Required</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bank Branch Number</td>
<td>Yes</td>
<td>VARCHAR2(120) Branch number of branch to create. Must be unique for the bank name and legislative data group that you select in the batch header. Branch number validation varies depending on country-specific rules. For example, in Australia, the combined value of bank number and branch number must not exceed six numbers.</td>
</tr>
<tr>
<td>BIC/SWIFT Code</td>
<td>No</td>
<td>VARCHAR2(120) Bank identifier code or SWIFT code that identifies bank and branch information for payments between two financial institutions. Known as Sort Code in UK or Routing/Transit Number in US.</td>
</tr>
</tbody>
</table>

**External Bank Account Columns**

The Create External Bank Account task workbook uses the following columns to create bank accounts, based on existing banks and branches. After you create external bank accounts, they can be available for use in personal payment methods for workers.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER Enter 1 for the first row and continue sequentially for subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440) Name of existing bank.</td>
</tr>
<tr>
<td>Bank Branch Name</td>
<td>Yes</td>
<td>VARCHAR2(1440) Name of existing branch.</td>
</tr>
<tr>
<td>IBAN</td>
<td>No</td>
<td>VARCHAR2(200) International bank account number conforming to the ISO standard for uniquely identifying a bank account for payments between banks. For some legislations only.</td>
</tr>
<tr>
<td>Account Type</td>
<td>No</td>
<td>CHAR(32)</td>
</tr>
<tr>
<td>--------------</td>
<td>----</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on values in the AR_IREC_BANK_ACCOUNT_TYPES lookup table. Valid values are:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• CHECKING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MONEYMRKT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SAVINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• UNKNOWN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Account Reference</td>
<td>No</td>
<td>VARCHAR2(120)</td>
</tr>
<tr>
<td>Usage varies by legislation, for example, this is known as Building Society Number in UK.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Name</td>
<td>No</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td>Label used to identify bank account when there are multiple accounts, for example, Checking or Savings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person Number</td>
<td>Yes</td>
<td>NUMBER(18)</td>
</tr>
<tr>
<td>Payroll relationship ID or third-party payee ID of an existing person with a corresponding TCA party.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Personal Payment Method Columns

The Create Personal Payment Methods task workbook uses the following columns to set up payment details, such as allocations to electronic funds transfer payments, for individual workers.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and continue sequentially for subsequent rows.</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>Yes</td>
<td>DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The first date the payment method is available for use. Must be in the format YYYY-MM-DD.</td>
</tr>
<tr>
<td>Payroll Relationship Number</td>
<td>Yes</td>
<td>NUMBER(18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing payroll relationship ID that identifies the person whose payment information you want to create.</td>
</tr>
<tr>
<td>Field</td>
<td>Mandatory</td>
<td>Type</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------</td>
<td>---------------</td>
</tr>
<tr>
<td>Amount</td>
<td>No</td>
<td>NUMBER</td>
</tr>
<tr>
<td>Priority</td>
<td>Yes</td>
<td>NUMBER(18)</td>
</tr>
<tr>
<td>Organization Payment Method</td>
<td>Yes</td>
<td>NUMBER(18)</td>
</tr>
<tr>
<td>Percentage</td>
<td>No</td>
<td>NUMBER(22)</td>
</tr>
<tr>
<td>Payment Amount Type</td>
<td>Yes</td>
<td>VARCHAR2(30)</td>
</tr>
<tr>
<td>Bank Account Number</td>
<td>Yes</td>
<td>NUMBER(18)</td>
</tr>
</tbody>
</table>

**FAQs for Manage Batch Uploads With Payroll Batch Loader**

**How can I access the payroll batch loader?**

Select **Manage Batch Uploads** from the Data Exchange work area. For payroll managers and administrators, select the **Batch Loader** task in the Payroll Administration work area. If a flow includes the batch loader, you can also access it from the Payroll Checklist work area using the Enter Batch task on the Payroll Flow page.

**Can I upload an Excel spreadsheet I create to the batch upload workbook?**

No, you must use the workbook downloaded from the batch loader. The batch loader automatically inserts macros that are essential for the success of your
subsequent processing. You can download the batch upload workbook to your desktop and edit the data before reloading it.

**How do I modify an Excel workbook template for payroll?**

Integrated Microsoft Excel workbook templates cannot be modified. This restriction ensures the fields entered correspond exactly to the HCM tables that receive the uploaded data.

**Load Time Card, Absence, and Benefit Batches**

**Setting Up and Processing Time Entries for Payroll: Critical Choices**

Before you can process time entries in a payroll run, you must complete setup tasks. These tasks vary depending on your configuration. For example, if your localization requires time cards, you select a Time Card Required field. If you use a third-party time provider, you determine which process to use to transfer time entries.

All configurations must create elements for time entries and submit a process to create time card calculation components. The following table describes the remaining setup tasks and processes that vary based on your configuration.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Setup Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time card required by localization</td>
<td>Indicate a time card is required for existing workers. Inform HR specialists to select this field when completing the new hire flow.</td>
</tr>
<tr>
<td>Oracle Fusion Time and Labor</td>
<td>Determine whether to schedule the process that transfers time card entries to payroll.</td>
</tr>
<tr>
<td>Third-party time provider</td>
<td>Create an extract definition of time entry elements that includes the element and mapping IDs. Determine which process to use to transfer time card entries to payroll.</td>
</tr>
<tr>
<td>Third-party payroll provider</td>
<td>Create an extract definition of the time entry data.</td>
</tr>
</tbody>
</table>

Review the following sections based on your configuration.

- Requiring time cards
- Using Oracle Fusion Time and Labor
- Using a third-party time provider
- Using a third-party payroll provider

**Requiring Time Cards**

Some localizations require workers to complete time cards and calculate pay based on the reported time. If your localization displays the Time Card Required field, indicate which workers complete time cards.

You have two options for where to select this field.

- HR specialists can select the field on the Employment Information page of the new hire flow.
Payroll managers can select the Manage Payroll Relationship task in the Payroll Calculations work area, and complete the information in the Payment Details section of the Manage Person Details page.

The following table shows how the selection of the Time Card Required field determines the hours to process for payroll calculations based on hours multiplied by rate.

<table>
<thead>
<tr>
<th>Time Card Required</th>
<th>Hours Used in Calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Time card entries</td>
</tr>
<tr>
<td>No</td>
<td>Work schedule, if the hours are not entered as element entries</td>
</tr>
</tbody>
</table>

Within your organization, you may have persons who complete time cards, but their time entries are not used to calculate their pay, such as salaried employees who report time for billing purposes. You would not select the Time Card Required field for these persons.

**Using Oracle Fusion Time and Labor**

If you transfer a high volume of time card entries to payroll, consider scheduling the transfer process. For example, you might specify a time after normal working hours to distribute the load on the servers, or increase the frequency to cover peak periods when you expect employees to complete their time cards.

You submit the Load Time Card Batches process flow to validate and transfer new and changed time card entries. You can submit the process manually or include it in a payroll flow. Indicate your scheduling preferences on the Schedule page when you submit the flow.

**Using a Third-Party Time Provider**

You create elements for time entry, and then run the Create Time Card Calculation Components process that creates calculation components for the elements and mapping IDs. You must create an extract of these elements and their mapping IDs for your time provider to use when transferring time entries to payroll. You must also decide which transfer process to use.

The following figure shows the options available for loading time entries.

Determine which option to use based on the best practices for your enterprise. All options create calculation cards for each person whose time entries are included in the batch.
<table>
<thead>
<tr>
<th>Option</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the Payroll Batch Loader</td>
<td>Submit the Create Batch process from the Payroll Administration work area to load time card entries.</td>
</tr>
<tr>
<td>Submit the Load Time Card Batches Process</td>
<td>Create an XML file as an attachment using the file format for transferring a batch of time cards. Submit the Load Time Card Batches process from the Payroll Administration or Payroll Checklist work areas to load an XML file.</td>
</tr>
<tr>
<td>Call the Time Card Web Service</td>
<td>Pass the time entries to payroll using the time web service.</td>
</tr>
</tbody>
</table>

**Using a Third-Party Payroll Provider**

If you are using Payroll Interface to transfer information to a third-party payroll provider, you can create an extract that includes the time card entries. Your payroll provider can then use the time card entry data when processing a payroll.

**Validating and Transferring Time Entries in Payroll: Explained**

Most time card applications and providers apply validation rules when workers submit their time cards, such as a minimum and maximum amount of enterable hours, or rules for overtime entry. When you transfer time card entries to payroll, the payroll application applies validations to ensure, for example, that the person is eligible for the time card element and is not terminated.

Aspects of working with time card entries include:

- Validating time entries
- Resolving transfer errors
- Viewing and correcting time entries

**Validating Time Entries**

If you are using Oracle Fusion Time and Labor, payroll validations occur when a time card is saved or submitted. After the time card is routed to an approver, such as the manager of the primary assignment, and the status is Submitted and Approved, the application updates the time card status to Ready to Transfer. When you transfer time card entries to payroll from Oracle Fusion Time and Labor or a third-party supplier, the application validates the time card entries to confirm that the worker has not been terminated and that the worker is eligible for the element. The application rejects time entries for any date beyond the worker’s termination date.

**Resolving Transfer Errors**

If you are using Oracle Fusion Time and Labor, the time entry and calculation rules reduce the likelihood of an error when you transfer the time entries. Depending on the error, you can roll back individual records or the entire transfer process. To coordinate the transfer of corrected time entries to payroll, notify the Time and Labor administrator and provide the administrator with the Oracle Enterprise Scheduler job number of the Load Time Card Batches process. After the administrator corrects the cause of the error in Time and Labor, the administrator can reset the status of the time entries that were not transferred.
successfully to Unprocessed. The next time you transfer the time cards, the process retrieves the time entries.

If you are using a third-party time provider, you can roll back the Load Time Card Batches process, resolve the transfer error with the time provider, and resubmit the Load Time Card Batches process.

**Viewing and Correcting Time Entries**

When you transfer time card entries by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas, the application creates a calculation card for each person whose time is transferred. There is only one time calculation card for each payroll relationship. A time calculation card includes entries for multiple assignments for the same payroll relationship. You can select the Manage Calculation Cards task in the Payroll Calculation work area and view but not update the time entries.

Any updates and corrections must occur in the application the person uses to report time. You can continue to transfer new and updated time entries to payroll until you calculate the payroll for the period that includes the time entries.

**File Format for Importing Time Entries to Payroll**

When you transfer time entries from a third-party provider by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose time entries are transferred. When creating the file, use the XML file format and XML tags described in this topic.

**XML File Format for Transferring Time Entries**

When you create a file to transfer time card entries to payroll, use the following structure.

```xml
<TIME_CARD_LIST>
  <TIME_CARD>...
  <ACTION>
    <TIME_CARD_ID>
      <MAPPING_ID>
        <MAPPING_NAME>
          <LDG_ID>
            <LDG_NAME>
              <HR_TERM_ID>
                <TERM_NUMBER>
                  <HR_ASSIGNMENT_ID>
                    <ASSIGNMENT_NUMBER>
                      <LEGAL_EMPLOYER_ID>
                        <LEGAL_EMPLOYER_NAME>
                          <TIME_CARD_START>
                            <TIME_CARD_END>
                              <TIME_ITEM_LIST>...
                              <TIME_ITEM>
                                <TIME_TYPE>
                                  { 
                                    <PAYMENT_RATE_ID>
                                      <PAYMENT_RATE_NAME> |
                                        <RATE_AMOUNT>
                                          <PERIODICITY>
                                            <FACTOR> | 
                                              <AMOUNT> 
                                                <PERIODICITY>
```
XML Tags
This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME_CARD_LIST</td>
<td>Parent tag that contains a set of time cards.</td>
</tr>
<tr>
<td>TIME_CARD</td>
<td>Object that contains the information about a specific time card.</td>
</tr>
<tr>
<td>ACTION</td>
<td>Action to perform, such as CREATE, REMOVE, MODIFY.</td>
</tr>
<tr>
<td>TIME_CARD_ID</td>
<td>Unique identifier for this time card.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition.</td>
</tr>
<tr>
<td></td>
<td>Specify the Mapping ID or the Mapping Name.</td>
</tr>
<tr>
<td></td>
<td>If none is included, the process uses the default interface type Import Time XML and attempts to find a mapping.</td>
</tr>
<tr>
<td>MAPPING_NAME</td>
<td>Name used for the mapping.</td>
</tr>
<tr>
<td></td>
<td>Specify the mapping name or the mapping ID.</td>
</tr>
<tr>
<td></td>
<td>If none is included, the process uses the default interface type Import Time XML and attempts to find a mapping.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group for this record.</td>
</tr>
<tr>
<td></td>
<td>Specify the identifier or name of the legislative data group. The records in the XML file must belong to the same legislative data group. If you do not include the LDG_ID or the LDG_NAME, the application uses the legislative data group you entered for the Load Time Card Batches process.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>Identifier for the legislative data group for this record.</td>
</tr>
<tr>
<td></td>
<td>Specify the identifier or name of the legislative data group. The records in the XML file must belong to the same legislative data group. If you do not include the LDG_ID or the LDG_NAME, the application uses the legislative data group you entered for the Load Time Card Batches process.</td>
</tr>
<tr>
<td>Term/Property</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the time card.</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the time card.</td>
</tr>
<tr>
<td>TIME_CARD_START</td>
<td>Start date of the time card.</td>
</tr>
<tr>
<td>TIME_CARD_END</td>
<td>End date of the time card.</td>
</tr>
<tr>
<td>TIME_ITEM_LIST</td>
<td>Tag that contains a set of time items.</td>
</tr>
<tr>
<td>TIME_ITEM</td>
<td>Object that contains information about a specific hour item.</td>
</tr>
<tr>
<td>TIME_TYPE</td>
<td>Name supplied by the time application that maps to the payroll element and calculation component.</td>
</tr>
<tr>
<td>PAYMENT_RATE_ID</td>
<td>Identifier for the rate used to calculate the payment amount.</td>
</tr>
<tr>
<td>PAYMENT_RATE_NAME</td>
<td>Name of the rate used to calculate the payment amount.</td>
</tr>
<tr>
<td>RATE_AMOUNT</td>
<td>Actual rate used to calculate the payroll amount.</td>
</tr>
<tr>
<td>AMOUNT</td>
<td>Flat amount used to calculate the rate based on periodicity</td>
</tr>
<tr>
<td>PERIODICITY</td>
<td>Frequency that determines the rate value, used with amount or rate amount.</td>
</tr>
<tr>
<td>FACTOR</td>
<td>Percentage applied to the rate amount to calculate the payment amount.</td>
</tr>
<tr>
<td>TIME_UNIT</td>
<td>Number of units for the hours item, for example 8 hours is 8 units.</td>
</tr>
<tr>
<td>TIME_UOM</td>
<td>Unit of measure for specifying time unit, such as hours</td>
</tr>
<tr>
<td>TIME_ITEM_START</td>
<td>Start time for the time item</td>
</tr>
<tr>
<td>TIME_ITEM_END</td>
<td>Ending time for the time item</td>
</tr>
<tr>
<td>COST_SEGMENTS</td>
<td>List of the costing segments.</td>
</tr>
<tr>
<td>PROPERTY_LIST</td>
<td>Set of properties for the time item.</td>
</tr>
<tr>
<td>PROPERTY_ITEM</td>
<td>Additional information that is captured. For example, a value definition for the property item State would return State and the name of the State.</td>
</tr>
<tr>
<td>NAME</td>
<td>Name of a property for the time item.</td>
</tr>
<tr>
<td>VALUE</td>
<td>Value of a property for the time item.</td>
</tr>
</tbody>
</table>

**Running the Load Benefit Batches Process: Explained**

Use the Load Benefit Batches process to transfer pension deduction information from a benefits application to Oracle Fusion Global Payroll or Global Payroll Interface for processing.

**Submitting the Process**

You can submit the process from the Payroll Checklist or Payroll Administration work areas, or you can add it to a payroll flow pattern so that it runs as part of your regular payroll flow.
To submit the process:

1. Click **Submit a Process or Report**.
2. Select the **Load Benefit Batches** process and click **Next**.
3. Enter a name to identify the flow.
4. Select a process date (this is the date on which transfer process is run).
5. Enter the system-defined ID for the Document of Record for the XML File that contains the pension data.
6. Select a process configuration group if you want to override the default (for example, to collect detailed logging information).
7. Click **Next** until you reach the review page, then click **Submit**.

### Resolving Transfer Errors

When you load a benefits batch, the application validates the entries to confirm that the worker has not been terminated and is eligible for the deduction. The application rejects entries for any date beyond the worker’s termination date. If the process ends in error, you can roll it back, resolve the error in the source application, and resubmit the Load Benefit Batches process.

### Viewing and Correcting Entries

When the process completes successfully, it creates or updates a calculation card for each person included in the XML file. Use the Manage Calculation Cards task in the Payroll Calculation work area to view the new entries on the cards. You can enter or update the following values on the cards, if required: Payee, Reference Number, and Employee Additional Contribution. The other values are view-only and must be maintained in the source application.

### File Format for Importing Pension Deductions to Payroll

You submit the Load Benefit Batches process from the Payroll Checklist or Payroll Administration work areas. When you transfer pension information from a third-party provider, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose pension information is transferred. When creating the file, use the XML file format and XML tags described below.

#### XML File Format for Importing Pension Deductions to Payroll

When you create a file to transfer pension deduction information to payroll, use the following format.

```xml
<BENEFIT_LIST>
  <BENEFIT>...
    <ACTION>
      <BENEFIT_ID>
      <MAPPING_ID>
      <LDG_ID>
      <LDG_NAME>
      {<HR_TERM_ID> <TERM_NUMBER> <HR_ASSIGNMENT_ID> <ASSIGNMENT_NUMBER> }
    <LEGAL_EMPLOYER_ID>
    <LEGAL_EMPLOYER_NAME>
```
This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENEFIT_LIST</td>
<td>The outer most tag that contains a set of benefits.</td>
</tr>
<tr>
<td>BENEFIT</td>
<td>Tag containing information about a particular benefit.</td>
</tr>
<tr>
<td>ACTION</td>
<td>The type of action that will be performed, such as CREATE, REMOVE, and MODIFY.</td>
</tr>
<tr>
<td>BENEFIT_ID</td>
<td>Unique identifier for the benefit from the source application. Never use the same ID twice to identify another benefit.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition. This ID is used when creating the benefit in payroll.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>ID of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>HR_TERM_ID</td>
<td>Unique ID for the HR Terms. You can provide either the TERM_NUMBER or the HR_TERM_ID. If the TERM_NUMBER is being used to identify the HR Term then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the pension deduction.</td>
</tr>
<tr>
<td>HR_ASSIGNMENT_ID</td>
<td>This is the HR Assignments unique ID. You can provide either the ASSIGNMENT_NUMBER or the HR_ASSIGNMENT_ID. If the ASSIGNMENT_NUMBER is being used to identify the HR Assignment then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the pension deduction.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_ID</td>
<td>ID of the legal employer name that the term or assignment belongs to.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_NAME</td>
<td>Legal employer name that the term or assignment belongs to.</td>
</tr>
<tr>
<td>BENEFIT_START</td>
<td>Start date of the benefit.</td>
</tr>
</tbody>
</table>
Transferring Absence Information to Payroll: Explained

You can transfer absence information from Oracle Fusion Absence Management or another absence application to Oracle Fusion Global Payroll or Global Payroll Interface for processing. You must complete the required setup in both applications to enable the transfer. You can transfer entitlement, accrual, final disbursement, and discretionary disbursement information.

Transferring absence information to payroll includes the following aspects:

- Creating elements for absence information
- Setting up absence plans
- Transferring absence entries
- Processing absence entries in payroll

Creating Elements for Absence Information

To process absence information you must create an element using the Manage Elements page in the Payroll Calculation or Setup and Maintenance work areas. Create an element with a primary classification of Absences and a category of Absence. Complete the element template for the type of absence plan that the element supports.

The element template prompts you for the type of plan. Your selection determines the questions that you will need to answer.

After creating the element, create at least one element eligibility record.

If you want to process absence entries in Global Payroll, you must create a payroll formula and associate it to the absence element by creating a status processing rule on the Element Summary page.

Setting Up Absence Plans

In Oracle Fusion Absence Management, create absence plans, which can be Accrual, Accrual with Entitlement, or Entitlement plans. Select the Transfer absence payment information for payroll processing check box in the Payroll Integration section of the Entries and Balances tab on the Create Absence Plan page. Select the element for the plan in the Element field to provide a link.
between the absence plan, the element, and the calculation component shown on workers' calculation cards.

**Transferring Absence Entries**

When an absence is recorded in Oracle Fusion Absence Management, the absence information is automatically transferred to the worker’s absence calculation card.

If you use another absence application, you transfer absence information by submitting the Load Absence Batches process from the Payroll Calculation, Data Exchange, or Payroll Administration work areas. The process transfers absence entries to absence calculation cards, where they can be processed by payroll.

When you submit the Load Absence Batches process, specify an XML file as an attachment. The XML file must use the required file format and XML tags.

**Processing Absence Entries in Payroll**

You can process the component details on the absence calculation card in a payroll run.

If you use a third-party payroll application, you can create an HCM extract of the absence entries for processing by your payroll application.

**File Format for Importing Absence Entries to Payroll**

You submit the Load Absence Batches process from the Data Exchange, Payroll Checklist or Payroll Administration work areas. When you transfer absence information from a third-party provider or from Oracle Fusion Absence Management application, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose absence information is transferred. When creating the file, use the XML file format and XML tags described below.

**XML File Format for Importing Absence Information to Payroll**

When you create a file to transfer absence information to payroll, use the following format.

```xml
<ABSENCE_LIST>
    <ABSENCE>
        <ABSENCE_TYPE>
            <ACTION>
                <ABSENCE_ID>
                    <MAPPING_ID>
                        <MAPPING_NAME>
                            <LDG_ID>
                                <LDG_NAME>
                                    <HR_TERM_ID>
                                        <TERM_NUMBER>
                                            <HR_ASSIGNMENT_ID>
                                                <ASSIGNMENT_NUMBER>
                                                    <ABSENCE_RATE_ID>
                                                        <ABSENCE_RATE_NAME>
                                                            <ABSENCE_UNIT>
                                                                <ABSENCE_UOM>
                                                                    <ADJUSTMENT_UNIT>
                                                                        <FACTOR>
                                                                            <PERIODICITY>
                                                                                <ABSENCE_START>
                                                                                    <ABSENCE_END>
                                                                                        <ABSENCE_DATE_LIST>
```
XML Tags
This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSENCE_LIST</td>
<td>The outer most tag that contains a set of absences.</td>
</tr>
<tr>
<td>ABSENCE</td>
<td>Tag containing information about a particular absence.</td>
</tr>
<tr>
<td>ABSENCE_TYPE</td>
<td>The type of absence that is being transferred to payroll, such as accrual, accrual with entitlement, or entitlement.</td>
</tr>
<tr>
<td>ACTION</td>
<td>The type of action that will be performed. such as CREATE, REMOVE, and MODIFY.</td>
</tr>
<tr>
<td>ABSENCE_ID</td>
<td>Unique identifier for the absence from the source application. Never use the same ID twice to identify another absence.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition. This ID is used when creating the absence in payroll.</td>
</tr>
<tr>
<td>MAPPING_NAME</td>
<td>Name used for the mapping.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>ID of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>HR_TERM_ID</td>
<td>Unique ID for the HR Terms. You can provide either the TERM_NUMBER or the HR_TERM_ID. If the TERM_NUMBER is being used to identify the HR Term then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the absence.</td>
</tr>
<tr>
<td>HR_ASSIGNMENT_ID</td>
<td>This is the HR Assignments unique ID. You can provide either the ASSIGNMENT_NUMBER or the HR_ASSIGNMENT_ID. If the ASSIGNMENT_NUMBER is being used to identify the HR Assignment then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the absence.</td>
</tr>
<tr>
<td>ABSENCE_RATE_ID</td>
<td>Unique identifier for the absence rate.</td>
</tr>
</tbody>
</table>
ABSENCE_RATE_NAME | Name of the rate that will be used to calculate the payment amount.
ABSENCE_UNIT | Unit of time in which the absence is recorded.
ABSENCE_UOM | The unit of measure being used for the absence (for example, days, hours or weeks).
ADJUSTMENT_UNIT | Unit of time in which an adjustment is being made to the absence.
FACTOR | Factor that is used in the calculation of the absence.
PERIODICITY | Used with the amount or rate, the periodicity is the frequency that determines the absence rate.
ABSENCE_START | Date the absence started.
ABSENCE_END | Date the absence ended
ABSENCE_DATE_LIST | List of dates in which the absence occurred.
ABSENCE_DATE | The date the absence is being reported.
LEAVE_DATE | Date in which the leave of absence took place.
ACCRUED_DATE | Date in which the absence was accrued.
OVERRIDING_FACTOR | Factor that is being used to override the calculation of the absence.
OVERRIDING_RATE_ID | Unique identifier for the rate being used to override the absence.
OVERRIDING_RATE_NAME | Name of the overriding rate that will be used to calculate the absence.
OVERRIDING_UOM | The unit of measure being used to override the absence (for example, days, hours or weeks).
OVERRIDING_UNIT | Unit of time in which an override is being made to the absence.

FAQs for Load Time Card, Absence, and Benefit Batches

Can I correct a time entry in payroll?

You cannot correct time card entries displayed within the calculation cards. You correct reported time in the time card application and then transfer the time cards to payroll by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas. When the transfer is complete, the person's calculation card displays the updated time entries. You can continue correcting and transferring entries until the time entries are processed in the payroll run. If you transfer corrected time entries after the payroll run begins, the process creates retroactive entries that are processed in the next payroll run.

What happens if a time card is transferred after the payroll run starts?

The time entries are not included in the payroll run. Process the time card entries in the current payroll period as an additional payroll run or submit QuickPay calculations, or process the entries as retroactive pay in the next payroll run.
You have several choices depending on the volume of the late time cards and the frequency of the payroll run.

- If several workers submit late time cards, create a payroll relationship group that includes these workers and process a payroll run for the time card entries.

- If only a few workers submit late cards, process the additional time entries separately by submitting the Calculate QuickPay process.

- If the payroll run occurs frequently, you might pay the time card entries in the next payroll run as retroactive pay.

As an example of retroactive pay, you might submit a weekly payroll flow that includes time card entries reported for that week. If you transfer corrections after the payroll calculation begins, the application creates element entries for the adjusted entries. The adjustments are included as retroactive pay in the next payroll run.

**What happens if time is reported beyond a termination date?**

Workers can enter time beyond their termination in many time applications, but the process to transfer those entries to payroll rejects time entries for elements that are end-dated or that occur beyond the termination date.

Often when managers initiate hidden terminations, that information is closely held until the termination date. To avoid release of information on planned terminations, several applications, such as Oracle Fusion Time and Labor, hide and ignore the future termination date until it is formally announced.

Workers reporting time in Oracle Fusion Time and Labor can report time entries beyond their termination date, without any indication that they are ineligible for the time entered. Line managers can view and approve these entries.

To prevent time entries beyond the termination date from transferring to payroll, the Load Time Card Batches process rejects time cards for elements that are end-dated or whose entries occur after the termination date, and for entries where the element eligibility criteria no longer applies.
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.

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.

The key required task in this task list is Manage Elements. In most cases, you must also create payroll definitions to support your elements. Payroll definitions, in turn, require you to create at least one consolidation group. Your business requirements and product usage determine which of the other tasks you must perform.

If you use Oracle Fusion Global Payroll Interface to transfer data to a third-party payroll provider, you may need to create element subclassifications, balances, organization payment methods, and object groups. Refer to the Global Payroll Interface documentation for more information.

Prerequisite Tasks

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.

**Important**

If you use Oracle Fusion Global Payroll Interface, make sure you select Payroll Interface as the product usage for the appropriate legislations on the Manage Payroll Product Usage page before you create any elements. The product usage setting ensures you use the appropriate element templates for the products you are using.

**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.

**Important**

Complete this task before the other tasks in this task list.

**Manage Elements**

Elements are the means of communicating payment and distribution information to payroll applications.

<table>
<thead>
<tr>
<th>Oracle Fusion Application</th>
<th>Element Purpose</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>Earning and deduction elements, such as bonuses, overtime earnings, and voluntary deductions. You can also create information elements to load custom data to use during a workforce compensation cycle.</td>
<td>Required for compensation plans and base pay, no matter which HR and payroll applications you are using.</td>
</tr>
<tr>
<td>Benefits</td>
<td>Deduction elements to record activity rate calculation results, such as employee contributions and employer distributions for medical options, and flex credits for flex offerings. You also create an earnings element if you set up your flex offering to disburse unused credits as cash.</td>
<td>Required if you use element entries to communicate benefits rate information to any payroll application.</td>
</tr>
<tr>
<td>Time and Labor</td>
<td>Earnings elements with input value of Hours.</td>
<td>Required if you pay worked time based on time card entries.</td>
</tr>
<tr>
<td>Absence Management</td>
<td>Earnings elements with input value of Hours.</td>
<td>Required if you process absence payments and book employer liability of accrual balances through Global Payroll or Global Payroll Interface.</td>
</tr>
</tbody>
</table>
Manage Payroll Definitions

The payroll definition supplies the pay period frequency and end dates. Even when using a third-party payroll application, you must define a payroll if any of the following conditions applies.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Requirements that Require a Payroll Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>All applications</td>
<td>• You want to use nonrecurring elements.</td>
</tr>
<tr>
<td></td>
<td>• You store salary or other element entry information at the employment terms level.</td>
</tr>
<tr>
<td></td>
<td>• You use Oracle Fusion Global Payroll Interface.</td>
</tr>
<tr>
<td>Compensation</td>
<td>You want to create a salary basis that uses the payroll period frequency.</td>
</tr>
<tr>
<td>Benefits</td>
<td>You want to use the payroll period frequency to calculate communicated rates or value passed to payroll.</td>
</tr>
<tr>
<td>Time and Labor</td>
<td>None</td>
</tr>
<tr>
<td>Absence Management</td>
<td>None</td>
</tr>
</tbody>
</table>

Note

If you use only recurring elements for compensation, you are not required to create a payroll definition. In this case, all end-of-year amounts appear in the recurring payments area in compensation history.

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.

Other Payroll-Related Setup Tasks

Other tasks in the Define Elements, Balances, and Formulas task list might be required in your implementation, depending on your requirements, as shown in the following table.

<table>
<thead>
<tr>
<th>Task</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Organization Payment Methods</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Element Classifications</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Fast Formulas</td>
<td>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 (provided with Global Payroll Interface), 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 payroll provider. If you create formulas using database items, you can submit the Generate Flexfield Database Items process to create database items for your flexfield contexts and segments.</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Balance Definitions</td>
<td>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.</td>
</tr>
<tr>
<td>Manage Object Groups</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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
- Payroll employment model
- Payroll calculation at the payroll relationship level

### 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 to be processed in payroll runs.

Note
There is no direct association between payroll relationships and work relationships.

**Payroll Employment Model**

The structure of the payroll employment model 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 employment 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.

- **Assignment**

  Because the assignment is the lowest level of the payroll employment model, elements assigned at this level usually vary from one assignment to another or are specifically for a single assignment. Elements at the Assignment level are typically used for monetary terms and conditions, such as overtime rules, rates, union dues, 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.

![Diagram of Payroll Calculation]

**Payroll Calculation**

Payroll relationships represent the association between a person and the payroll statutory unit. Payroll processing always 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.

**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 select 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. Four areas are 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 facilitates 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 that 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 carry a role assigned to the bank account to use it.

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.

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.
The standard 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’s BACS, and in Australia it’s BECS.
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 bank 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’s 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.

Note
If you are costing your payments, enter cost account information on the Manage Costing of Payment Sources page in the Accounting Distribution work area for cash, liability, and cash clearing accounts if you are reconciling your payments. You can indicate whether you plan to cost cleared payments and external payments, and transfer final accounting entries to general ledger.

Payment Rules

The payment source defined initially 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 value as No to instead receive notifications that they can resolve manually.

Default Organization Payment Methods

You can define as many organization payment methods as required for your enterprise. When you create a payroll, you can select which of organization
payment methods are valid for employees assigned to that payroll. You select one method as the default payment 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.

**Relationship to Other Objects**

You select organization payment methods when defining other objects, such as payroll definitions, third-party payment methods, and personal 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 specific 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.

<table>
<thead>
<tr>
<th>Object</th>
<th>Functional Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Payment Method</td>
<td>Associates a person to a specific organization method. If the payment type is EFT, the person’s bank information is included in the personal payment method. 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.</td>
</tr>
<tr>
<td>Third-Party Payment Method</td>
<td>Enables separate payment information for payments to third parties who are not on the payroll. Payments to third parties, such as garnishments or other involuntary deductions, are typically check payments processed separately from the payroll. To manage third-party payment methods, payroll managers and administrators use the Manage Third-Party Payment Methods task on the Payment Distribution work area.</td>
</tr>
<tr>
<td>Payroll Definition</td>
<td>Establishes the default payment method for payments to employees who have no personal payment method defined. To manage payroll definitions, payroll managers and administrators use the Manage Payroll Definitions task on the Payroll Calculation work area.</td>
</tr>
</tbody>
</table>
Run-Type Payment Method

Overrides a payroll’s default payment method for payments to employees with no personal payment method defined.

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.

To manage run type payment methods, payroll managers and administrators use the Manage Run Types task on the Payroll Calculation work area.

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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many organization payment methods are needed?</td>
<td>One method to pay by electronic funds transfer (EFT) in US dollars.</td>
</tr>
<tr>
<td>How many payment sources are needed?</td>
<td>Three. One default payment source for the US, one source for payments in Texas, and one source for payments in California.</td>
</tr>
<tr>
<td>How many bank accounts will be used?</td>
<td>Three. One for each payment source.</td>
</tr>
<tr>
<td>What payment method rules will be used?</td>
<td>Rules for bank accounts used as payment sources based on tax reporting unit.</td>
</tr>
<tr>
<td>Is notification required to alert the source financial institution before processing EFT payments?</td>
<td>Yes. Ten days before EFT payments.</td>
</tr>
</tbody>
</table>

In this example, the InFusion US company pays its workers by EFT payments. To comply with state regulations for out-of-state payments, the company sets payment rules to pay from two different banks based on 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 the Organization Payment Method**

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**.

   **Tip**

   Select a date that is on or before the effective date of the payroll definition or other objects that are related to this payment method.

5. In the Basic Details section, complete the fields as shown in this table, and then click **Save**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Payroll Direct Deposit US</td>
</tr>
<tr>
<td>Payment Type</td>
<td>NACHA</td>
</tr>
<tr>
<td>Currency</td>
<td>US Dollar</td>
</tr>
</tbody>
</table>

6. Click **Save**.

**Adding EFT File Information**

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 Payment Information section, enter values as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenotification Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Prenotification Days</td>
<td>10</td>
</tr>
</tbody>
</table>

2. Click **Save**.
Setting Up the Payment Sources

Perform the following steps three times to create each payment source.

1. In the Payment Sources section under Payment Source Information, click Create.

On the Create Payment Source page, complete the fields in order, as shown in this table, and then click Continue.

<table>
<thead>
<tr>
<th>Field</th>
<th>US Value</th>
<th>Texas Value</th>
<th>California Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Payroll EFT Source US</td>
<td>Payroll EFT Source Texas</td>
<td>Payroll EFT Source California</td>
</tr>
<tr>
<td>Bank Account Name</td>
<td>InFusion US Wells Fargo</td>
<td>Comerica Bank Texas</td>
<td>Bank of the West California</td>
</tr>
</tbody>
</table>

Note

Keep your payment source names unique and as specific as possible for each scenario. This will help when managing more complicated combinations of organization payment methods and payment rules.

Creating Payment Rules

1. In the Payment Method Rules section, for Payroll EFT Source US, ensure that the default setting is Yes.

2. In the same section, 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Texas Value</th>
<th>California Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tax Reporting Unit</td>
<td>Texas TRU</td>
<td>California TRU</td>
</tr>
<tr>
<td>Payment Source</td>
<td>Payroll EFT Source Texas</td>
<td>Payroll EFT Source California</td>
</tr>
</tbody>
</table>

3. Click Submit.

Creating Third Parties: Points to Consider

You create third parties when you want to process payments to external organizations and people who are not on the payroll. You can also create predefined third-party organization for payments, such as pension providers or professional bodies, or third-party organizations that do not receive payments, such as disability organizations. When you create third parties, you record the name, address, and contact information, and associate the third parties to employees on their calculation cards or element entries. Third-party types are Person and Organization.
Party Usage Codes

All third parties created on the Manage Third Parties page are also created as trading community members. When you create a third-party person, the application automatically assigns a party usage code of External Payee. There is no other purpose for creating a third-party person aside from associating it with employees to receive payments, such as involuntary deductions. When you create a third-party organization, you can associate it with a party usage code. Third-party organizations can have the following party usage codes:

<table>
<thead>
<tr>
<th>Party Usage Code</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Payee</td>
<td>Identifies organizations that can be associated with employee calculation cards or element entries, such as County Sheriff for involuntary deductions. Use this party usage code for organizations when the others don't apply.</td>
</tr>
<tr>
<td>Payment Issuing Authority</td>
<td>Identifies organizations responsible for issuing instructions for involuntary deductions, such as a tax levy or bankruptcy payment order. An example of a payment issuing authority is a court, agency, or government official that issues a legal process. Payment issuing authorities do not receive payments.</td>
</tr>
<tr>
<td>Pension Provider</td>
<td>Identifies organizations that provide pension administration for employee pension deductions.</td>
</tr>
<tr>
<td>Professional Body</td>
<td>Identifies organizations entrusted with maintaining oversight of the legitimate practice of a professional occupation. For example, the American Society for Mechanical Engineers in the US.</td>
</tr>
<tr>
<td>Bargaining Association</td>
<td>Identifies organizations representing employees in negotiations, for involuntary deductions.</td>
</tr>
<tr>
<td>Disability Organization</td>
<td>Identifies organizations that are authorized to make disability assessments. For example, the Royal National Institute of Blind People in the UK. Disability organizations do not receive payments.</td>
</tr>
</tbody>
</table>

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 or voluntary deductions, such as pension plan or union membership payments.

Before creating a third-party payment method, create the third party using the Manage Third Parties task in the Payment Distribution work area. In addition, the organization payment method that determines the payment source to use for payments 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 legislative data group of the employee whose pay is subject to the deduction, and then select the employee payroll relationship. This makes the third-party person payment method available for selection as a payee on the employee’s calculation 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 calculation card, you can select Mary Smith in the Order Amount Payee field.

Payments to Organizations
When you create a third-party organization for payments, you select a party usage code. When you create the payment method for the third-party organization, you select the legislative data group of the employees whose pay is subject to the deduction, to make the organization available for selection as a payee on the employee calculation cards.
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 calculation 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.
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.

*Note*  
For payroll definitions using the semimonthly payroll period type, the first period end date is normally the 15th of the month or the last date of the month. If you use a different first period end date, the application calculates payroll periods so that the two payroll periods within the same month are 15 days apart. The number of days in payroll periods that contain the last day of the month will vary based on the number of days in the month.

**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.

Note
The application generates the calendar of payroll periods in increments of five or fewer years. For example, if you want a 12-year calendar of payroll periods, you first enter 5 years and submit your changes. Then you edit the payroll definition twice, first setting the number of years to 10, and then setting the number of years to 12.

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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutoff Date</td>
<td>Final date that payroll information can be entered for the payroll period.</td>
</tr>
<tr>
<td>Payslip Availability Date</td>
<td>Date on which the payslip is available for viewing.</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>Date used by payroll calculation processes to retrieve effective values such as employee details. The process date, if provided when submitting a payroll process, overrides this value.</td>
</tr>
<tr>
<td>Date Earned</td>
<td>Date on which element entries are added to the payroll run.</td>
</tr>
<tr>
<td>Date Paid</td>
<td>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.</td>
</tr>
</tbody>
</table>

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 cutoff 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, 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 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.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which consolidation group should be used?</td>
<td>User-defined consolidation group:</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Group</td>
</tr>
<tr>
<td>What is the legislative data group for the consolidation group?</td>
<td>User-defined legislative data group:</td>
</tr>
<tr>
<td></td>
<td>InFusion US LDG</td>
</tr>
<tr>
<td>What are the payroll periods to use?</td>
<td>Predefined payroll period types:</td>
</tr>
<tr>
<td></td>
<td>Semimonthly</td>
</tr>
<tr>
<td></td>
<td>Monthly (Calendar)</td>
</tr>
<tr>
<td>What are the names of the new payroll definitions?</td>
<td>InFusion US Emp Semimonthly</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Monthly</td>
</tr>
<tr>
<td>What is the name of the organization payment method to use for all employees?</td>
<td>User-defined payment methods:</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp Check</td>
</tr>
<tr>
<td></td>
<td>InFusion US Emp EFT</td>
</tr>
<tr>
<td>What are the reporting names to be used as a basis for reports, such as extracted data for a third-party payroll provider?</td>
<td>InFusion US Semimonthly</td>
</tr>
<tr>
<td></td>
<td>InFusion US Monthly</td>
</tr>
</tbody>
</table>

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 generate payroll time periods covering five 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Semimonthly Value</th>
<th>Monthly Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>InFusion US Emp Semimonthly</td>
<td>InFusion US Emp Monthly</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>InFusion US Semimonthly</td>
<td>InFusion US Monthly</td>
</tr>
<tr>
<td>Consolidation Group</td>
<td>InFusion US Emp Group</td>
<td>InFusion US Emp Group</td>
</tr>
<tr>
<td>Period Type</td>
<td>Semimonthly</td>
<td>Monthly (Calendar)</td>
</tr>
<tr>
<td>First Period End Date</td>
<td>6/15/12</td>
<td>6/30/12</td>
</tr>
<tr>
<td>Default Payment Method</td>
<td>InFusion US Emp EFT</td>
<td>InFusion US Emp Check</td>
</tr>
</tbody>
</table>

Note

If the first period end date is set to a date that is neither the 15th nor the end of the month, the application generates payroll periods within the same month that are exactly 15 days apart. The number of days in payroll
periods that contain the last day of the month varies based on the number of days in the month.

6. On the Payroll Offsets page, in the Number of Years field, enter 5.

**Note**

The application generates the calendar of payroll periods in increments of 5 or fewer years. For example, if you want a 12-year calendar of payroll periods, you first enter 5 years and submit your changes. Then you edit the payroll definition twice, first setting the number of years to 10, and then setting the number of years to 12.

7. For the semimonthly payroll, use dynamic variables to define offsets as shown in this table, and then click **Next**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Falls Value</th>
<th>Day Type Value</th>
<th>Offset Value</th>
<th>Base Date Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutoff Date</td>
<td>5</td>
<td>Work Days</td>
<td>Before</td>
<td>Period End Date</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>3</td>
<td>Work Days</td>
<td>Before</td>
<td>Period End Date</td>
</tr>
</tbody>
</table>

8. For the monthly payroll, use fixed dates to define offsets as shown in this table, and then click **Next**.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Date</td>
<td>Yes</td>
</tr>
<tr>
<td>Cutoff Date</td>
<td>6/25/12</td>
</tr>
<tr>
<td>Date Earned</td>
<td>6/30/12</td>
</tr>
<tr>
<td>Payroll Run Date</td>
<td>6/27/12</td>
</tr>
<tr>
<td>Date Paid</td>
<td>6/30/12</td>
</tr>
</tbody>
</table>

9. On the Payroll Calendar page, adjust payroll days to account for a bank holiday, as shown in this table.

<table>
<thead>
<tr>
<th>Column</th>
<th>Semimonthly Value</th>
<th>Monthly Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Run Date</td>
<td>Old Value: 11/28/13</td>
<td>Old Value: 5/27/13</td>
</tr>
</tbody>
</table>

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. Most classifications also have a priority range. To set the priority you need to edit the element on the Element Summary page. 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

Each formula usage corresponds to one or more formula types, requiring specific formula inputs and outputs. These requirements are explained in separate chapters of the Oracle Fusion Fast Formula Guide.

**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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the formula for a specific legislative data group?</td>
<td>No, this is a global formula that can be used by any legislative data group.</td>
</tr>
<tr>
<td>What is the formula type for this formula?</td>
<td>Range of Scheduled Hours</td>
</tr>
<tr>
<td>Are there any contexts used in this formula?</td>
<td>No</td>
</tr>
<tr>
<td>Are there any database item defaults?</td>
<td>Yes, ASG_JOB</td>
</tr>
<tr>
<td>Are there any input value defaults?</td>
<td>No</td>
</tr>
<tr>
<td>What are the return values?</td>
<td>MIN_HOURS, MAX_HOURS, FREQUENCY</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Name</td>
<td>Manager Range of Scheduled Hours</td>
</tr>
<tr>
<td>Formula Type</td>
<td>Range of Scheduled Hours</td>
</tr>
<tr>
<td>Description</td>
<td>Manager's Range of Hours</td>
</tr>
</tbody>
</table>
4. Click Continue.

5. Enter the following formula details in the Formula Text section:

```sql
/* 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:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the formula for a specific legislative data group?</td>
<td>Yes, InVision</td>
</tr>
<tr>
<td>What is the formula type for this formula?</td>
<td>Payroll Relationship Group</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula Name</td>
<td>Executive Payroll Relationship Group</td>
</tr>
<tr>
<td>Type</td>
<td>Payroll Relationship Group</td>
</tr>
</tbody>
</table>
Define Elements, Balances, and Formulas

<table>
<thead>
<tr>
<th>Description</th>
<th>Executive Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Vision LDG</td>
</tr>
<tr>
<td>Effective As-of Date</td>
<td>1-Jan-2010</td>
</tr>
</tbody>
</table>

4. Click Continue.

5. In the Formula Details section, click **Add After** to add a row to enter the fields in this table.

<table>
<thead>
<tr>
<th>Conjunction</th>
<th>Database Item Name</th>
<th>Data Type</th>
<th>Operand</th>
<th>Literal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF</td>
<td>DEPARTMENT</td>
<td>Character</td>
<td>=</td>
<td>'EXECT_10000'</td>
</tr>
<tr>
<td>Then</td>
<td>SELECT_EMP</td>
<td>Character</td>
<td>=</td>
<td>'YES'</td>
</tr>
<tr>
<td>ELSE</td>
<td>SELECT_EMP</td>
<td>Character</td>
<td>=</td>
<td>'NO'</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Formula Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntax Error</td>
<td>The formula text violates the grammatical rules for the formula language. An example is using IF1 instead of IF for an IF statement.</td>
</tr>
<tr>
<td>Incorrect Statement Order</td>
<td>ALIAS, DEFAULT, or INPUT statements come after other statements.</td>
</tr>
<tr>
<td>Misuse of ASSIGNMENT Statement</td>
<td>Occurs when any of these conditions occurs:</td>
</tr>
<tr>
<td></td>
<td>• An ASSIGNMENT assigns a value to a database item.</td>
</tr>
<tr>
<td></td>
<td>• A context is assigned a value externally to a CHANGE-CONTEXTS statement.</td>
</tr>
<tr>
<td></td>
<td>• A non-context variable is assigned a value within a CHANGE-CONTEXTS statement.</td>
</tr>
<tr>
<td>Misuse of ALIAS Statement</td>
<td>An ALIAS statement may only be used for a database item.</td>
</tr>
<tr>
<td>Formula Error</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Missing <strong>DEFAULT</strong> Statement</td>
<td>A database item with defaulting specified must have a <strong>DEFAULT</strong> statement.</td>
</tr>
<tr>
<td>Misuse of <strong>DEFAULT</strong> Statement</td>
<td>A <strong>DEFAULT</strong> statement is specified for a variable other than an input or database item.</td>
</tr>
<tr>
<td>Uninitialized Variable</td>
<td>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.</td>
</tr>
<tr>
<td>Missing Function Call</td>
<td>A function call is not recognized. The combination of return type, function name, and parameter types does not match any available function.</td>
</tr>
<tr>
<td>Incorrect Operator Usage</td>
<td>An instance of a formula operator use does not match the permitted uses of that operator.</td>
</tr>
<tr>
<td></td>
<td>For example, the + operator has two permitted uses. The operands are both of data type <strong>NUMBER</strong>, or both of data type <strong>TEXT</strong>.</td>
</tr>
<tr>
<td>Inconsistent Data Type Usage</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>For example, Variable A is assigned a <strong>NUMBER</strong> value at the start of the formula, but a <strong>TEXT</strong> value later in the formula.</td>
</tr>
<tr>
<td><strong>EXIT</strong> Statement Not Within <strong>WHILE</strong> Loop</td>
<td>A condition that eventually becomes false, or an <strong>EXIT</strong> call for exiting the loop does not exist.</td>
</tr>
<tr>
<td>Misuse of Context</td>
<td>A variable is used as a context, or a context is used as a variable.</td>
</tr>
<tr>
<td></td>
<td>For example, <strong>AREA1</strong> is assigned a value as an ordinary variable, but later in the formula <strong>AREA1</strong> used as a context in a <strong>GET_CONTEXT</strong> call.</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Formula Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninitialized Variable</td>
<td>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.</td>
</tr>
<tr>
<td>Error Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Divide by Zero</td>
<td>Raised when a numeric value is divided by zero.</td>
</tr>
</tbody>
</table>
| 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 WSA_GET, 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 two 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.

You can use the batch loader from the Payroll Administration work area or Data Exchange work area to create multiple balance definitions at the same time. 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.

**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.
• Have an eligibility record associated with it, with an early effective start date.

**Batch Views**

Populate the batch views with the balance values for the initialization date. You can use the Payroll batch loader workbook, or populate the batch directly using the API in the PAY_BALANCE_BATCH_LINES_PKG API package. You can download the batch loader workbook in the Payroll Administration work area. The views are:

- PAY_BALANCE_BATCH_HEADER
- PAY_BALANCE_BATCH_LINES

**Important**

The PAY_BALANCE_BATCH_LINES view has a complex definition and cannot be directly inserted into. You must use the batch loader workbook or API.

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.
- Every line must include a value for payroll relationship number. If the line is initializing a terms-level balance, you must also enter a term number. If the line is initializing an assignment-level balance, you must also enter a term number and an assignment number.

**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.

<table>
<thead>
<tr>
<th>Defined Balance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total_Earnings_PTD</td>
<td>100</td>
</tr>
<tr>
<td>Total_Earnings_QTD</td>
<td>250</td>
</tr>
<tr>
<td>Total_Earnings_YTD</td>
<td>500</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Adjustment Date</th>
<th>Adjustment Value</th>
<th>Balances Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 June</td>
<td>100</td>
<td>Total_Earnings_PTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_QTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_YTD</td>
</tr>
<tr>
<td>1 April</td>
<td>150</td>
<td>Total_Earnings_QTD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total_Earnings_YTD</td>
</tr>
<tr>
<td>1 Jan</td>
<td>250</td>
<td>Total_Earnings_YTD</td>
</tr>
</tbody>
</table>

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 Payroll batch loader workbook 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.

<table>
<thead>
<tr>
<th>Column</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAYROLL_RELATIONSHIP_ID +</td>
<td>Identify the payroll relationship for this balance</td>
</tr>
<tr>
<td>PAYROLL_RELATIONSHIP_NUMBER</td>
<td>value.</td>
</tr>
<tr>
<td>BALANCE_TYPE_ID + BALANCE_NAME</td>
<td>Identify the balance for this balance value.</td>
</tr>
</tbody>
</table>
Define Elements, Balances, and Formulas

<table>
<thead>
<tr>
<th>Column</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE_DIMENSION_ID + DIMENSION_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>VALUE</td>
<td>Identify the numerical value of the balance on the upload date.</td>
</tr>
<tr>
<td>UPLOAD_DATE</td>
<td>Identify the date of the balance value. This date must be on or before the upload date for the batch header.</td>
</tr>
<tr>
<td>PAYROLL_ID + PAYROLL_NAME</td>
<td>Identify the context required for evaluating a balance value, even though it may not be a context for the dimension.</td>
</tr>
</tbody>
</table>

**Core Context**

The core contexts shown in the following table must be populated if the balance dimension expects a value for this context.

<table>
<thead>
<tr>
<th>Column</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAYROLL_TERM_ID + TERM_NUMBER</td>
<td>Identify the payroll terms 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.</td>
</tr>
<tr>
<td>PAYROLL_ASSIGNMENT_ID + ASSIGNMENT_NUMBER</td>
<td>Identify the payroll assignment for this balance value, if required.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_ID + LEGAL_EMPLOYER_NAME</td>
<td>Identify state and country code information. In Oracle E-Business Suite these items were STATE_CODE, COUNTY_CODE and so on.</td>
</tr>
<tr>
<td>TAX_UNIT_ID + TAX_UNIT_NAME</td>
<td></td>
</tr>
<tr>
<td>AREA1 + AREA2 + AREA3 + AREA4</td>
<td></td>
</tr>
<tr>
<td>THIRD_PARTY_PAYEE_ID + THIRD_PARTY_PAYEE_NAME</td>
<td></td>
</tr>
<tr>
<td>TIME_DEFINITION_ID + TIME_DEFINITION_NAME</td>
<td></td>
</tr>
<tr>
<td>RUN_TYPE_NAME + RUN_TYPE_ID</td>
<td></td>
</tr>
<tr>
<td>ELEMENT_ENTRY_ID</td>
<td></td>
</tr>
<tr>
<td>BALANCE_DATE</td>
<td></td>
</tr>
<tr>
<td>CALC_BREAKDOWN_ID</td>
<td>Identify the ID associated with the payroll terms. If the deduction card is the calculation breakdown, enter the PAY_DIR_CARDS_F.DIR_CARD_ID. If the deduction component is the calculation breakdown, enter the PAY_DIR_CARD_COMPONENTS_F.DIR_CARD_COMP_ID.</td>
</tr>
</tbody>
</table>

**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:
Overview of 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 Management
You can manage worker absences and corresponding entitlements. To facilitate reporting and analysis of employee absences, you can distinguish between absence categories, absence types, and absence reasons. You can associate an absence element with an absence plan to:
• Process payments for absent time during maternity or long term sickness
• Process disbursement of partial time accruals
• Process accrual disbursement when plan enrollment ends
• Process absence liability amounts

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.

You can use the batch loader from the Payroll Administration work area or the Data Exchange work area to load elements.
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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>Control the order in which the entry value is displayed on element entries.</td>
</tr>
<tr>
<td>Special Purpose</td>
<td>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.</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>Select the value that describes the type of value the entry value can hold, such as number or character.</td>
</tr>
<tr>
<td>Displayed</td>
<td>Select to display the input value on the element entry.</td>
</tr>
<tr>
<td>Allow User Entry</td>
<td>Select to enter values on element entries.</td>
</tr>
<tr>
<td>Required</td>
<td>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.</td>
</tr>
<tr>
<td>Create a Database Item</td>
<td>Select to have a database item created for the input value to make the values available for formulas or system extract.</td>
</tr>
<tr>
<td>Default</td>
<td>Enter a value that appears as the default value for this entry value in element entries, if needed.</td>
</tr>
<tr>
<td>Apply default at runtime</td>
<td>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.</td>
</tr>
<tr>
<td>Minimum</td>
<td>Enter a minimum value for the element, if needed.</td>
</tr>
<tr>
<td>Maximum</td>
<td>Enter a maximum value for the element, if needed.</td>
</tr>
<tr>
<td>Validation Formula</td>
<td>Enter a formula that validates the entry value entered on element entries, if needed.</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Validation Source</td>
<td>Use with the other input value options to select the valid validation method, such as lookups or formulas.</td>
</tr>
<tr>
<td>Lookup Type</td>
<td>Specify a lookup type to provide a list of values for an element entry value. This option is available for input values of type Character only.</td>
</tr>
<tr>
<td>Warning or Error</td>
<td>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.</td>
</tr>
<tr>
<td>Reference</td>
<td>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. 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.</td>
</tr>
</tbody>
</table>

**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.

---

**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.

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.

Manage Elements

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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Your Legislative Data Group</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Standard Earnings</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Regular</td>
</tr>
</tbody>
</table>

4. Click Continue.
5. On the Basic Details page, complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>REGULAR SALARY</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Regular Salary.</td>
</tr>
<tr>
<td>Effective Date</td>
<td>1/1/2010</td>
</tr>
<tr>
<td>Input Currency</td>
<td>US Dollar</td>
</tr>
<tr>
<td>Should every person eligible for the element automatically receive it?</td>
<td>No.</td>
</tr>
<tr>
<td>What is the earliest entry date for this element?</td>
<td>First Standard Earnings Date</td>
</tr>
<tr>
<td>What is the latest entry date for this element?</td>
<td>Last Standard Earning Date</td>
</tr>
<tr>
<td>At which employment level should this element be attached?</td>
<td>Assignment Level</td>
</tr>
<tr>
<td>Does the element recur each payroll period, or does it require explicit entry?</td>
<td>Recurring</td>
</tr>
<tr>
<td>Process the element only once in each payroll period?</td>
<td>Yes</td>
</tr>
<tr>
<td>Can a person have more than one entry of the element in a payroll period?</td>
<td>No</td>
</tr>
<tr>
<td>Process and pay element separately or with other earnings elements?</td>
<td>Process and pay with other earnings</td>
</tr>
</tbody>
</table>

6. Click Next.

7. On the Additional Details page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the calculation rule?</td>
<td>Flat Amount</td>
</tr>
<tr>
<td>How do you want to derive the amount?</td>
<td>Entered value</td>
</tr>
<tr>
<td>What is the time-basis for this element?</td>
<td>Periodically</td>
</tr>
<tr>
<td>Is this element subject to proration?</td>
<td>No</td>
</tr>
<tr>
<td>Is this element subject to retroactive changes?</td>
<td>No</td>
</tr>
<tr>
<td>Use this element to calculate a gross amount from a specified net amount?</td>
<td>No</td>
</tr>
<tr>
<td>Should this element reduce regular earnings?</td>
<td>No</td>
</tr>
</tbody>
</table>

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.
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.
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.
<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the primary classification?</td>
<td>For US compensation, you select one of these three choices: \</td>
</tr>
<tr>
<td></td>
<td>• Standard Earnings</td>
</tr>
<tr>
<td></td>
<td>• Supplemental Earnings</td>
</tr>
<tr>
<td></td>
<td>• Voluntary Deductions</td>
</tr>
<tr>
<td>What is the secondary classification?</td>
<td>This item is optional. The available choices vary based on the selected primary classification. \</td>
</tr>
<tr>
<td></td>
<td>• Standard Earnings: Regular, Regular Not Worked</td>
</tr>
<tr>
<td></td>
<td>• Supplemental Earnings: Bonus</td>
</tr>
<tr>
<td></td>
<td>• Voluntary Deductions: Leave blank</td>
</tr>
<tr>
<td>At which employment level should this element be</td>
<td>Match the employment level to the level at which the salary basis is associated with workers, either Assignment Level or Terms Level. \</td>
</tr>
<tr>
<td>attached?</td>
<td>If you are creating an element for base pay and are using the Payroll period frequency in your salary basis, you must define the element at the terms level.</td>
</tr>
<tr>
<td>Does this element recur each payroll period, or does it</td>
<td>The typical selections for US compensation are: \</td>
</tr>
<tr>
<td>require explicit entry?</td>
<td>• Standard Earnings: Recurring*</td>
</tr>
<tr>
<td></td>
<td>• Supplemental Earnings: Nonrecurring</td>
</tr>
<tr>
<td></td>
<td>When not using Oracle Fusion Global Payroll or setting up and assigning payrolls, you can select Recurring*. In that case, all end of year amounts appear in the recurring payments area in compensation history.</td>
</tr>
<tr>
<td></td>
<td>• Voluntary Deductions: Recurring*</td>
</tr>
<tr>
<td></td>
<td>* The default value for this field.</td>
</tr>
<tr>
<td>Which input values should I leave for the application to</td>
<td>For payroll elements associated with: \</td>
</tr>
<tr>
<td>display?</td>
<td>• Salary bases (base pay): Display only Amount or Rate (hourly frequency) \</td>
</tr>
<tr>
<td></td>
<td>• Individual and workforce compensation plans: Display only the Amount input value. \</td>
</tr>
<tr>
<td></td>
<td>Also, for individual compensation plans, in the Special Purpose field, select Primary Input Value.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Example Purpose or Use</th>
<th>US LDG Primary Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurring base pay, such as annual salaries and hourly earnings</td>
<td>Standard Earnings</td>
</tr>
<tr>
<td>Recurring payments, such as an allowance</td>
<td>Standard Earnings</td>
</tr>
<tr>
<td>Nonrecurring payments, such as a bonus</td>
<td>Supplemental Earnings</td>
</tr>
<tr>
<td>Recurring voluntary deductions, such as savings plans or charitable contributions</td>
<td>Voluntary Deductions</td>
</tr>
</tbody>
</table>

4. Select the secondary classification that corresponds to the selected primary classification.

<table>
<thead>
<tr>
<th>Example Purpose or Use</th>
<th>US LDG Secondary Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurring base pay</td>
<td>Regular</td>
</tr>
<tr>
<td>Recurring payment</td>
<td>Regular Not Worked</td>
</tr>
<tr>
<td>Nonrecurring payment</td>
<td>Bonus</td>
</tr>
<tr>
<td>Recurring voluntary deduction</td>
<td>Select the relevant choice. If there is none, leave it blank.</td>
</tr>
</tbody>
</table>

5. Click Continue.

**Enter Basic Information**

1. Complete the general fields, as shown in this table.
<table>
<thead>
<tr>
<th>Field</th>
<th>Sample Value</th>
</tr>
</thead>
</table>
| 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 in your salary bases as well as individual and workforce compensation plans. |
| 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? | Match the employment level to the level at which the salary basis is associated with workers, either Assignment Level or Term Level. |
| Does this element recur each payroll period, or does it require explicit entry? | For nonrecurring payments such as a bonus, select Nonrecurring.  
For all other purposes or uses in this worked example accept the default, Recurring. |

**Note**  
When not using Oracle Fusion Global Payroll, you can select Recurring for nonrecurring payments, such as bonus. In that case, all end of year amounts appear in the recurring payments area in compensation history. As an alternative, you can set up and assign payrolls to all workers and use nonrecurring elements.

2. To accept the remaining default values, click **Next**.
Enter Additional Details
These steps apply only to base pay elements when you have also implemented Oracle Fusion Global Payroll or Oracle Fusion Global Payroll Interface. When those payroll applications are not implemented, this page does not appear.

For hourly payroll elements, select **Unit X Rate** to answer the question **What is the calculation rule?**

For standard earning elements with regular or regular not worked secondary classifications, complete the following steps.

1. Complete the additional detail fields, as shown in this table

<table>
<thead>
<tr>
<th>Field</th>
<th>Sample Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this element subject to proration?</td>
<td>Yes</td>
</tr>
<tr>
<td>Proration Group</td>
<td>Entry Changes for Proration</td>
</tr>
<tr>
<td>Is this element subject to retroactive changes?</td>
<td>Yes</td>
</tr>
<tr>
<td>Retro Group</td>
<td>Entry Changes for Retro</td>
</tr>
</tbody>
</table>

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. Also, for individual compensation plans, in the **Special Purpose** field, select **Primary Input Value**.

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.

<table>
<thead>
<tr>
<th>Value</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Warning</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Error</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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 Absence Management: Worked Example

This example demonstrates how to create an absence element for a vacation accrual absence plan. Based on your setup decisions, this procedure creates the following additional elements:

- Accrual element, to process absence liability amounts
- Entitlement element, process payments for absent time during maternity or long term sickness
- Discretionary Disbursement element, to process disbursement of partial time accruals
- Final Disbursement element, to process accrual disbursement when the absence plan enrollment ends

The name of the element is prefixed to each additional element.

The following table summarizes key decisions for this scenario.
Define Elements, Balances, and Formulas

### Decisions to Consider

<table>
<thead>
<tr>
<th>Field</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of an absence plan is this element for?</td>
<td>Accrual with entitlement</td>
</tr>
<tr>
<td>Who is eligible to receive this element?</td>
<td>All workers</td>
</tr>
<tr>
<td>Do you want the element to calculate absence liability?</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you want to use a rate or a flat amount to calculate absence liability?</td>
<td>Rate</td>
</tr>
<tr>
<td>How do you want to calculate the absence liability?</td>
<td>Calculate liability on balance change since last period.</td>
</tr>
<tr>
<td>• Using the full accrual balance?</td>
<td></td>
</tr>
<tr>
<td>• Difference between the current accrual balance and the balance previously used for the liability calculation?</td>
<td></td>
</tr>
<tr>
<td>Does your absence plan enable balance payments when enrollment ends?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does your absence plan enable payment of partial accrual balances?</td>
<td>Yes</td>
</tr>
<tr>
<td>How do you want to calculate deductions for paid absences?</td>
<td>Reduce regular earnings by absence payment</td>
</tr>
<tr>
<td>• Reduce regular earnings by the amount of the absence payment so that the worker does not get paid twice?</td>
<td></td>
</tr>
<tr>
<td>• Select a rate to determine the absence deduction amount?</td>
<td></td>
</tr>
</tbody>
</table>

### Prerequisites

Ensure that you created a rate definition to determine the monetary value of a unit of absence based on the salary. You create a rate definition using the Manage Rate Definitions task in the Setup and Maintenance work area.

### Creating an Absence Element

1. In the Absence Administration work area, click Manage Elements in the Tasks pane to open the Manage Elements page. You can also open this page using the Manage Elements task in the Setup and Maintenance work area or the Payroll Calculations work area.

2. Click Create.

3. In the Create Element window, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Select your legislative data group.</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Absences</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Select an appropriate value for your legislation, such as vacation.</td>
</tr>
<tr>
<td>Category</td>
<td>Absence</td>
</tr>
</tbody>
</table>

4. Click Continue.
5. On the Create Element: Basic Information page, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>What type of absence plan is this?</td>
<td>Accrual with entitlement</td>
</tr>
</tbody>
</table>

6. Click Next.

7. On the Create Elements: Additional Details page, complete the fields as shown in this table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which balance should be used for the liability calculation?</td>
<td>Balance change since last period.</td>
</tr>
<tr>
<td>Does this plan enable balance payments when enrollment ends?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does this plan enable partial payment of absences?</td>
<td>Yes</td>
</tr>
<tr>
<td>How should deductions be made for this plan?</td>
<td>Reduce regular earnings by absence payment</td>
</tr>
</tbody>
</table>

8. Click Next.

9. On the Create Element: Review page, review the information that you entered so far.

10. Click Submit to open the Element Summary page.

**Creating Element Eligibility**

1. In the Element Overview section of the Element Summary page, click the Element Eligibility node.
2. Click Create Element Eligibility from the Actions menu.
3. In the Element Eligibility section, enter Vacation Payment Open in the Element Eligibility Name text box. Leave the rest of the fields on the page blank.
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.

The following table summarizes key decisions for each element that you create and provides the selections for this example.
### Decision to Consider

<table>
<thead>
<tr>
<th>What is the primary classification?</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the secondary classification?</td>
<td>One of these choices:</td>
</tr>
<tr>
<td>At which employment level should this element be attached?</td>
<td>This item is optional. The available choices vary based on the selected primary classification.</td>
</tr>
<tr>
<td>Does this element recur each payroll period, or does it require explicit entry?</td>
<td>Select the appropriate level:</td>
</tr>
<tr>
<td>What are the input values for deduction elements?</td>
<td>Select Recurring.</td>
</tr>
</tbody>
</table>

### Creating an Element

**Important**

Ensure the value for the Payroll Product Usage setting is Payroll Interface. This setting ensures that you use the correct version of element templates to generate your elements.

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

<table>
<thead>
<tr>
<th>Example Purpose or Use</th>
<th>Primary Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurring base pay, such as annual salaries and hourly earnings</td>
<td>Standard Earnings</td>
</tr>
<tr>
<td>Recurring payments, such as an allowance</td>
<td>Standard Earnings</td>
</tr>
</tbody>
</table>
Nonrecurring payments, such as a bonus | Supplemental Earnings
Recurring or nonrecurring voluntary deductions, such as savings plans, charitable contributions, or uniform deposit | Voluntary Deductions

5. Select the secondary classification that corresponds to the selected primary classification.

<table>
<thead>
<tr>
<th>Example Purpose or Use</th>
<th>Secondary Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurring base pay</td>
<td>Regular</td>
</tr>
<tr>
<td>Nonrecurring payment</td>
<td>Bonus</td>
</tr>
<tr>
<td>Recurring voluntary deduction</td>
<td>Select the relevant choice. If there is none, leave it blank.</td>
</tr>
</tbody>
</table>

6. Click Continue.

7. On the Basic Information page, complete the fields as shown in this table, and then click Next.

<table>
<thead>
<tr>
<th>Field</th>
<th>Sample Value</th>
</tr>
</thead>
</table>
| 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 an 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 Earnings Date |
| What is the latest entry date for this element? | Last Standard Process Date |
At which employment level should this element be attached? | Select the appropriate level, such as payroll relationship for deductions and benefits, and terms or assignment level for salary.
---|---
Does this element recur each payroll period, or does it require explicit entry? | Recurring
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 Input Values for Deduction Elements**

Input values are created automatically for earnings elements. However you can create additional input values, if required, to hold any specific codes required by your payroll provider. Input values aren’t created automatically for deductions so you must create them. Make sure you select the special purpose Primary Input Value for one of the input values.

If you create a recurring deduction element, you can set another input value for goal amount so that element entries for that element stop after the goal amount is reached. The name of input values for goal amounts must be Goal Amount for the value to be captured and provided to a third-party payroll provider.

1. In the Element Overview hierarchy, select Input Values.
2. From the Actions menu, select Create Input Values.
3. For all deduction elements, enter the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of the input value, such as Period Deduction Amount</td>
</tr>
<tr>
<td>Special Purpose</td>
<td>Primary input value or Percentage</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>Money</td>
</tr>
<tr>
<td>Create a Database Item</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. For recurring deduction elements with a goal amount, enter the following values.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Goal Amount</td>
</tr>
<tr>
<td>Unit of Measure</td>
<td>Money</td>
</tr>
<tr>
<td>Create a Database Item</td>
<td>Yes</td>
</tr>
</tbody>
</table>

5. Click Save.
6. Click Submit.
Setting Up Element Eligibility

On the Element Summary page, update the newly created element detail for eligibility.

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**.
4. In the **Element Eligibility** name field, enter the element name with the suffix: Open.
5. In the Eligibility Criteria section, select **All payrolls eligible**.
6. Click **Save**.
7. Click **Submit**.

Creating Elements for Time Card Entries: Explained

You create elements to process pay based on time card entries, such as elements for regular, overtime, double-time, and shift pay. You must submit a process to create calculation components for the elements, and then transfer the elements to your time provider.

The following figure describes the steps you perform to create elements for use by your time provider and for calculating reported time in payroll.

Create Earnings Elements

When you create an earnings element for use with time cards on the Manage Elements page of the Payroll Calculation work area, you select a primary classification of standard or supplemental earnings, and an element category for time and labor, if available, or if not, for standard. You complete the element template, and indicate a calculation rule of hours multiplied by rate. You must also complete the element eligibility information.

All rate calculation is performed when processing pay. If your time provider displays the rate as a time card field and the worker enters a rate, the formula for the element uses this rate when calculating the run result for the element entry.

In some localizations, payroll managers create elements with a variety of rates and rate codes that apply to overtime. Payroll managers may need to manage overtime as premium time and use average hourly rate calculations to pay overtime premiums.
Submit the Create Time Card Calculation Components Process

After creating elements, you submit the Create Time Card Calculation Components process from the Payroll Checklist or Payroll Calculation work areas. The process creates calculation components for new elements and for existing elements that have a calculation rule of hours multiplied by rate, which were not included previously in this process.

Transfer the Elements to a Time Application or Provider

The Create Time Card Calculation Components process creates mapping IDs for the time entry elements. You transfer this information to your time provider.

If you use Oracle Fusion Time and Labor, you run the Generate Time Card Fields process to convert elements to payroll time types, which Time and Labor administrators can then add as time card fields. The mapping IDs are not displayed. They are included in the transfer process to appropriately map the time entries to the elements when you submit the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas.

If you use a third-party time provider, you must create an extract definition of the time entry elements with their mapping IDs. The third-party provider includes the mapping IDs in the XML file that you upload when you submit the Load Time Card Batches process.

Creating Voluntary and Pre-statutory Deductions: Explained

Use the Manage Elements task to create voluntary and pre-statutory deductions, such as pensions. Pensions are managed through calculation cards. Other voluntary deductions, such as gym membership, union membership, and charity donations, are managed through element entries.

The steps to set up these deductions are as follows:

1. Create the elements.
2. Create the third-party payees.
3. Create a third-party payment method for each third-party payee.
4. Enter the deduction details for each person, which can be done in the following ways, depending on the deduction type and your setup:
   - Create a Benefits and Pensions calculation card.
   - Create an element entry.
   - Load benefit batches.

Create Elements

To create a pensions deduction, select the Pension Plan After Tax secondary classification and the Benefit category. If you want to create pre-statutory deductions, select Pension Plan Pre-Statutory as the secondary classification. These selections ensure that a calculation component is created, which you can add to a Benefits and Pensions calculation card.

To create other voluntary deductions:
• Select the **Standard** category. This selection means that you manage these deductions using the Manage Element Entries page.

• After creating the element, you must add a Payee input value and select **Third-Party Payee** as the special purpose for this input value. If appropriate, you can enter a default value on the element or element eligibility record to populate the third-party payee details.

**Create Third-Party Payees**

To create third-party payees use the Manage Third Parties page in the Payment Distribution work area. For pensions, select the **Organization** payee type and select the **Pension Provider** party usage code.

**Create Third-Party Payment Methods**

To create payment methods for all external payees, use the Manage Third-Party Payment Methods task in the Payment Distribution work area.

**Enter Deduction Details for Each Person**

For pensions create a Benefit and Pension calculation card for the worker, add your new pension calculation component to the card, and enter the payee and other details. If you load your pension information using the Load Benefit Batches process, the payroll application creates the calculation card automatically. Before running this process, you must create an XML file that contains the data you want to transfer to payroll.

For other voluntary deductions, create element entries. If the payee is not defaulted from the element or eligibility record, enter the payee on the element entry.

**Determining Entry Values for an Element: Critical Choices**

You can select rules for an element to define how you can update its element entries. The options include:

• Automatic entry

• Allow multiple entries in same period

• Additional entry

**Automatic Entry**

When you create an element, you can select **Yes** for the question: Should every person eligible for the element automatically receive it? This setting selects the **Automatic entry** option by default for all eligibility records you create for that element. However, you can override the selection for any specific eligibility record before you save it.

When you select this option, saving the eligibility record initiates a payroll flow to create element entries for all eligible workers. You can view the progress of the process in the **Automatic Entry Status** field. If the status shows that an error occurred, you can save the eligibility record again to resubmit the flow.
If you have access to payroll work areas, you can also monitor the progress of the Generate Automatic Element Entries flow by navigating to the Processes and Reports tab through the Payroll Dashboard, Payroll Checklist work area, or Payroll Calculation work area.

Afterward, any updates to the employment records of eligible workers, including hires and terminations, automatically update, create, or end the element entries, as appropriate.

If you select the **Automatic entry** option for an eligibility record, provide a default value for any required input values.

---

**Important**

An element with the **Automatic entry** option selected cannot **allow multiple entries in the same period**.

---

**Allow Multiple Entries in Same Period**

This option enables 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

---

**Note**

These are the predefined options, you can create others that fit your business needs.

---

**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.

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.

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.

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.

**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.

**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.

**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.
Note
A base pay element associated with a salary basis must be recurring.

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 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

Manage object groups from the Payroll Calculation work area. Load a batch of object groups using the batch loader from the Payroll Administration work area or the Data Exchange work area.

**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.

Configure Legislations for Human Resources

Payroll Legislative Data: Explained

Use the Configure Legislations for Human Resources 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 set up elements and other payroll-related data in your legislation.

Objects you configure include:

- Legislative rules
- Primary element classifications
- Valid payment types
- Component 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.
Component Groups

Component groups are logical sets of component types, elements, and calculation rules. A legislation may require them for the calculation of certain types of deductions, such as federal, social insurance, taxes, or involuntary deductions. For your legislation, select the supported component groups and provide new names for them as appropriate.

The Configure Legislations for Human Resources task creates a sample calculation card for your localization. The calculation card creates the components for the component groups you selected. The element template then associates these components with the statutory elements you create. These components must be associated with your employees for that particular calculation 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 Legislations for Human Resources 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 set up organization payment methods.

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.

Manage and Load Batches for Payroll

Payroll Data Loading: Overview

You can load data for initial migration or mass data entry using the following tools: payroll batch loader, HCM Data Loader, and web services. You can also automate the regular import of time cards, absence entries, and pension enrollments using the inbound interfaces provided for each of these types of data.

This topic provides an overview of your options to meet the following data loading requirements:

- Initial migration of data for implementation
- Exporting and importing setup data between test and production environments
- Ongoing data loading
Initial Migration of Data for Implementation

The following table contrasts the type of data you typically migrate and the actions you perform to load that data.

<table>
<thead>
<tr>
<th>Loader</th>
<th>Objects</th>
<th>Task or Task List</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM Data Loader</td>
<td>A wide range of HCM data, including workforce structures such as business units, element entries, salaries, salary bases, and people.</td>
<td>Define Batch Data Loads task list in the Setup and Maintenance work area.</td>
<td>Import the data from files to staging tables for validation, then load the data to the application tables.</td>
</tr>
<tr>
<td>Payroll Batch Loader</td>
<td>Payroll setup data, including elements, balances, balance groups, payroll definitions, object groups, user-defined tables, and fast formula globals. Worker data such as element entries, time and absence entries, initial balance values, assigned payrolls, and bank account details.</td>
<td>Batch Loader task in the Payroll Administration or Data Exchange work areas.</td>
<td>Enter the data in a workbook format that is specific to the object type, save your entries to staging tables, and transfer the data batch to the application tables.</td>
</tr>
</tbody>
</table>

Exporting and Importing Setup Data Between Environments

Typically, your initial migration of data is to a test environment. After successful testing, you can move the data to your production environment by exporting then importing a configuration package in the Setup and Maintenance work area. Use the Manage Configuration Packages task.

Ongoing Data Loading

You can use the payroll batch loader to load element entries, time cards, and other payroll data on an ongoing basis. You can use the HCM Data Loader or HCM spreadsheet loaders to load other HR, compensation, and benefits data, such as benefit enrollments, stock grants, and locations.

Specific interfaces are provided for loading the following types of data for payroll processing:

- Time card entries
- Absence entries
- Pension enrollments

Setup involves creating an element and mapping the element to the data source, such as an absence plan or time type. Transfer of data may be automated through web services or require submission of a process to load the data from an XML file, depending on the source application.

To meet other data loading requirements, you can create, update, and delete objects directly in application tables using web services. Details
of the services are provided in Oracle Enterprise Repository (https://fusionappsoer.oracle.com).

Manage Batch Uploads With Payroll Batch Loader

Setting Up Oracle ADF Desktop Integration for Excel: Points to Consider

To use a desktop integrated Excel workbook to create or edit records that you can upload to Oracle Fusion Applications, you must fulfill software requirements, install a desktop client, and set up Microsoft Excel.

Software Requirements

You must have installed:

- Microsoft Excel 2007 or 2010
- Microsoft Windows XP Professional, Vista - Business, Vista - Ultimate, or 7

Desktop Client Installation

Install the Oracle ADF Desktop Integration Add-in for Excel, which is a desktop client that enables you to use the integrated workbooks that you download from Oracle Fusion Applications. If the client installer is not available under Navigator - Tools, then ask your administrator where you can find the installer.

Important

Make sure you are signed in to your computer with your account when you perform the installation. For example, you cannot have someone else sign in as an administrator and make the installation available for all users of your computer.

Depending on the setup of the client installer itself, you may get automatic updates when new versions of the client are available. If you do not get automatic updates, then you need to reinstall the client whenever the client version changes. You can find your client version in the About section of the workbook and ask your administrator if that version is the latest.

If the location of the client installer ever changes, then:

- You will not receive automatic updates.
- You must uninstall the client from your computer and use the installer from the new location.

Note

Any time you need to reinstall the client, you must first uninstall and then perform the install procedure again.

To uninstall, use the Add or Remove Programs dialog box from the Control Panel to remove the Oracle ADF Desktop Integration Add-in for Excel client.
Microsoft Excel Setup

Perform the following steps in Microsoft Excel only once, even if you reinstall the desktop client.

1. Click the Microsoft Office button, and click the Excel Options button.
2. In the Excel Options dialog box, select the Trust Center tab, and click Trust Center Settings.
3. In the Trust Center dialog box, select the Macro Settings tab, and select the Trust access to the VBA project object model check box.

Note
The exact steps can vary depending on your version of Microsoft Excel.

Working in Desktop Integrated Excel Workbooks: Points to Consider

Where available, you can download a desktop integrated Microsoft Excel workbook in which you can create or edit records. While you work in the integrated workbook, no changes are actually made in Oracle Fusion Applications; your edits take effect only after you upload the records back. As you work, keep in mind conventions and statuses used in the file, requirements for search, possible need to refresh, and things you should not do.

Conventions

Some column headers in the integrated workbook might include [..]. This means that you can double-click or right-click within any cell in the column to open a dialog box that lets you select a value to insert into the cell.

Statuses

The worksheet status in the header area applies to the entire worksheet, or tab, within the integrated workbook. Likewise, the table status applies to only the corresponding table. The row status applies to the state of the row within the workbook, not to the record itself. For example, if the row is an expense item, the status does not mean the status of the expense item itself, but of the data in the row, in the context of the workbook.

Search

Some integrated workbooks have search functionality. For the search to work within the workbook, you must sign on to Oracle Fusion Applications.

Refresh

After you upload to Oracle Fusion Applications, you might need to refresh the data in the table if your changes are not reflected. You can use the refresh option for the table, or perform a filter or search on the table.
What You Should Not Do

To make sure that the upload to Oracle Fusion Applications goes smoothly, do not:

• Rename text from the integrated workbook, for example the worksheet or tab names.
• Use your own styles in the file.
• Add columns.
• Delete any part of the template, for example columns.
• Hide required columns and status columns or headers.

Payroll Batch Upload Tasks: Explained

Batch loader workbooks are a fast way to upload batches of data. You load data into staging tables using the generic batch loader then transfer the batch into live HCM tables.

Batch uploads can be created, based on predefined templates, to load the following data:

• Balances
• Balance groups
• Elements
• Element entries
• Payroll definitions
• Payroll relationships
• Personal payment methods
• Bank information for electronic funds transfer payments
• Fast formula global values
• Object groups

This figure illustrates the tasks to complete to create and upload data using the batch upload workbooks.
You can access the batch loader in the Data Exchange work area. Payroll managers and administrators can also access the batch loader and batch processes in the Payroll Administration work area, or using the Enter Batch task if it is included in a flow.

**Create Batch**

Create a batch directly on the batch loader workbook or through the Create Batch process run on the Submit a Process or Report page in the Payroll Calculation work area. Enter a batch manually by adding rows for each line of data for the batch needed. Create a batch through a process to automatically add rows to the workbook for the people and elements in which you want to add data. Prior to running the Create Batch process you must create object groups that contain the elements or people needed in the batch. The create batch process can only run for element entries and balances.

**Enter Batch**

You enter data in columns, which vary depending on the type of batch you are creating. Add rows for each line of data that you need to add.

**Transfer Batch**

A batch exists in the temporary staging tables until you run the Transfer Batch process to create entries in the HCM table in which the data is applicable. Access the Submit a Process or Report task from the Payroll Administration work area to run the Transfer Batch process.

**Review Batch**

Once you have transferred the batch, access the Batch Message Sheet, on the batch loader workbook, to view any messages that occurred from the transfer process being run. If an error occurred, correct the problem causing the error and rerun the Transfer Batch process.

**Purge Batch**

You purge batch data once it is transferred successfully to the applicable HCM tables. You run the Purge Batch process on the Submit a Process or Report page. You can purge a batch at any time.

**Payroll Batch Load Process: Explained**

The Payroll batch loader imports data from integrated Microsoft Excel workbook templates into the staging tables and transfers that data into the application.

This topic describes how to populate the workbook manually, but there are other options:

- Submit the Create Batch process to create a batch for all members of an object group.
- Submit the Create Batch from File process to create a batch from data in a file.
- Use the Manage Batch Uploads web service to create a batch.
Depending on the data type that you want to load, there may be several upload tasks available, each with a template that supplies all of the required and optional columns you can use.

**Tip**

Some upload tasks have interdependencies and must be performed sequentially. It is recommended that you create separate workbooks for each of these tasks, for each legislative data group where you are adding data for related objects, to ensure that these dependencies are intact. For example, banks and branches are related, so you first create banks in one workbook, and then create the branches together in the next workbook.

The basic process for importing data using the Payroll batch loader is:

1. For each task, populate the batch loader workbook and import the data into the staging tables.
2. Transfer the uploaded data from the staging tables.
3. Verify the import results.

**Prerequisites**

Before you can populate worksheets, you must have installed Oracle ADF Desktop Integration for Excel.

**Populating the Workbook**

When you download the batch loader workbook, you use it to enter your data. The following steps show how to download the workbook, add your data, and upload the data to the staging tables.

**Important**

All data that you create should be unique for the given legislative data group that you select in the batch header.

1. In the Payroll Administration work area, click **Batch Loader**, and then click **Download**. Open the workbook and sign in.
2. On the last row of the Batch Header Sheet tab, in the Batch Name field, enter a name for the batch.
   
   This name is what you use when running the transfer process to move the data from the staging tables.
3. In the same row, select the legislative data group from the list, then click **Save**.
4. On the Batch Content Sheet tab, under Batch Contents Action, click **Add**, and then select the task you want.
5. In the Batch Content Line Details section, insert rows for each data item that you want to add and enter all required values.
6. Click **Save** and leave the workbook open.
Transferring the Batch

After you have saved your data to the staging tables, you submit a process to transfer the batch.

The following steps show how to move the data from the staging tables and verify that the transfer was successful.

1. In the Payroll Administration work area, click Submit a Process or Report.
2. Select your legislative data group.
3. In the Flow Pattern column, select Transfer Batch, and then click Next.
4. In the Payroll Flow field, enter a name for the process. You can use this name later when looking for process status.
5. In the Batch field, search for and select the batch name you want to transfer, and then click Next.
7. On the Review page, click Submit, and then click OK and View Checklist.
8. Click Refresh until the Transfer Batch process status displays as complete.
9. In the workbook, display the Batch Messages Sheet, then display the Batch Content Sheet. The status should be Transferred.
10. Display the Batch Message Sheet. You should see no error messages

Payroll Batch Statuses: Explained

Batches that you manage in workbooks from the Batch Loader page include a status, displayed on the Batch Header Sheet. The status depends on the status of the batch header, all the batch lines, and any control totals specified for the batch. On the Batch Header Sheet, you can see the following status values:

- Valid
- Transferred
- Transfer incomplete
- Unprocessed
- Error

Valid

When the status is marked as Valid, all of the lines, control totals, and header are valid.

Transferred

When the status is marked as Transferred, all of the lines, control totals, and header have been transferred from the staging tables to the live HCM tables.
Transfer Incomplete

When the status is marked as Transfer Incomplete, the header and control totals have been transferred, along with some of the lines.

Unprocessed

When the status is marked as Unprocessed, at least one line, control total, or the header is unprocessed, and no lines have been transferred.

Error

When the status is marked as Error, the header has not been transferred and at least one line, control total, or the header is in error. Go to the Batch Message Sheet to view details about the content lines in error.

Creating Element Entries Using the Batch Loader: Worked Example

This example demonstrates how to create element entries for bonus earnings for two workers in the InFusion US Sun Power legislative data group using the batch loader. Nichole is an executive and receives a bonus that is ten percent of her salary. Joseph is an instructor and receives a fixed amount of 500.

There are three sheets associated with the batch loader: Batch Header Sheet, Batch Content Sheet, and Batch Messages Sheet.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of data do you want to load in the workbook?</td>
<td>Element Entry</td>
</tr>
<tr>
<td>What is the legislative data group for the batch?</td>
<td>InFusion US Sun Power</td>
</tr>
<tr>
<td>What is the name to assign to the batch?</td>
<td>InFusion Bonus</td>
</tr>
<tr>
<td>What is the name of the bonus element to use for the batch?</td>
<td>Bonus - Annual</td>
</tr>
<tr>
<td>Who are the workers to receive the bonus element entries?</td>
<td>Nichole Brown and Joseph Frederickson</td>
</tr>
</tbody>
</table>

Prerequisites

This worked example assumes that the following prerequisites have already been met:

1. You have installed Oracle ADF Desktop Integration Runtime Add-in for Excel.
2. A bonus element has been created that is set at the assignment level for element entries.
3. You know the assignment numbers of the workers to receive the bonus element entries.
Creating a Batch Header

1. From the Payroll Administration work area, select the Batch Loader task.
2. On the Batch Loader page, click Download.
3. After the DesktopGenericBatch.xlsx file downloads, open the file.
4. When prompted to connect, click Yes.
5. In the Login dialog box, enter your user ID and password, and then click Sign In.
6. Navigate to the Batch Header Sheet at the bottom of the workbook.
7. In the Batch Name column of the Search Results section, enter InFusion Bonus.
8. In the Legislative Data Group list, select InFusion US Sun Power.
9. Click Save.
10. In the Upload Options dialog box, accept the default selection and click OK.

Once your selections are saved, the Batch Status text for that row displays that the row inserted successfully.

Creating Batch Content

1. On the Batch Header Sheet, double-click the batch name InFusion Bonus to prepare for data entry.
2. Navigate to the Batch Content Sheet.
4. Search for and select the Bonus - Annual task name, and then click OK.

The workbook should update to display the columns for the selected element, ready for data entry.
5. In the Batch Line Content Details section, enter the values for Nichole as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>1</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>2012-12-15</td>
</tr>
<tr>
<td>Assignment Number</td>
<td>E1000842</td>
</tr>
<tr>
<td>Percentage</td>
<td>10</td>
</tr>
<tr>
<td>Legislative Data Group</td>
<td>InFusion US Sun Power</td>
</tr>
</tbody>
</table>

6. Right-click the next row number and insert a row for Joseph’s details.
7. Enter the values for Joseph as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>2</td>
</tr>
</tbody>
</table>
8. Click **Save**.

9. In the Upload Options dialog box accept the default selection and click **OK**.

**Important**

Keep the workbook open. You will verify the element entries were transferred in the final step of this example.

---

**Transferring the Batch**

1. From the Payroll Administration work area, click **Submit a Process or Report**.

2. In the Legislative Data Group field, select **InFusion US Sun Power**.

3. In the Flow Pattern column, select **Transfer Batch**, and then click **Next**.

4. In the Payroll Flow field, enter a name for the process, such as **InFusion Bonus Batch**.

5. In the Batch field, search for and select **InFusion Bonus**, and then click **Next**.

6. On the Enter Flow Interaction page, click **Next**.

7. On the Review page, click **Submit**.

8. Click **OK and View Checklist**.

9. Click **Refresh** until the Transfer Batch process status displays as complete.

---

**Verifying the Transfer**

1. In the workbook, navigate to the Batch Messages Sheet.

2. Navigate to the Batch Content Sheet.
   
   You should see the status displayed as transferred.

3. Navigate back to the Batch Message Sheet.
   
   You should see no error messages. The element entries are now attached to Nichole and Joseph. You can use the Manage Element Entries task to find the workers and see the new element entries.

---

**Creating Globals Using the Batch Loader: Worked Example**

This example demonstrates how to enter globals for two types of bonuses in the InFusion US Sun Power legislative data group using the batch loader workbook. The bonus for executives is initially set at ten percent. The bonus for instructors is initially set at a fixed value of 500. These values can later be changed in the global so that the same value is applied in any formulas that use them.
There are three sheets associated with the batch loader: Batch Header Sheet, Batch Content Sheet, and Batch Messages Sheet.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of data do I want to load using the workbook?</td>
<td>Fast Formula Global</td>
</tr>
<tr>
<td>What is the legislative data group for the batch?</td>
<td>InFusion US Sun Power</td>
</tr>
<tr>
<td>What is the name to assign to the batch?</td>
<td>InFusion Globals</td>
</tr>
<tr>
<td>What are the globals to create?</td>
<td>Executive Bonus for a percentage and Instructor Bonus for a fixed amount.</td>
</tr>
</tbody>
</table>

**Prerequisite**
This worked example assumes that the following prerequisite has already been met:

1. You have installed Oracle ADF Desktop Integration Runtime Add-in for Excel.

**Creating a Batch Header**

1. From the Payroll Administration work area, select the Batch Loader task.
2. On the Batch Loader page, click **Download**.
3. After the DesktopGenericBatch.xlsx file downloads, open the file.
4. When prompted to connect, click **Yes**.
5. In the Login dialog box, enter your user ID and password, and then click **Sign In**.
6. Navigate to the Batch Header Sheet at the bottom of the workbook.
7. In the Batch Name column of the Search Results section, enter InFusion Globals.
8. In the Legislative Data Group list, select **InFusion US Sun Power**.
9. Click **Save**.
10. In the Upload Options dialog box, accept the default selection and click **OK**.

Once your selections are saved, the Batch Status text for that row displays that the row inserted successfully.

**Creating Batch Content**

1. On the Batch Header Sheet, double-click the batch name **InFusion Globals** to prepare for data entry.
2. Navigate to the Batch Content Sheet.
3. Under Batch Contents Action, click **Add**.
4. In the Task Name field, enter Fast Formula Global.
5. Click **Search**.
6. Select **Fast Formula Global**, and then click **OK**.
The workbook should update to display the columns for the selected task, ready for data entry.

7. In the Batch Line Content Details section enter the values for each global as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>First Global Value</th>
<th>Second Global Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Effective Start Date</td>
<td>2011-01-01</td>
<td>2011-01-01</td>
</tr>
<tr>
<td>Effective End Date</td>
<td>2020-12-31</td>
<td>2020-12-31</td>
</tr>
<tr>
<td>Value</td>
<td>.10</td>
<td>500</td>
</tr>
<tr>
<td>Data Type</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Name</td>
<td>Executive Bonus</td>
<td>Instructor Bonus</td>
</tr>
</tbody>
</table>

Note
To insert more lines for additional global values, right-click on the row number where you want to add a row, and then select Insert.

8. Click Save.

9. In the Upload Options dialog box accept the default selection and click OK.

Important
Keep the workbook open. You will verify the globals were transferred in the final step of this example.

Transferring the Batch
1. From the Payroll Administration work area, click Submit a Process or Report.
2. In the Legislative Data Group field, select InFusion US Sun Power.
3. In the Flow Pattern column, select Transfer Batch, and then click Next.
4. In the Payroll Flow field, enter a name for the process, such as InFusion Globals Batch.
5. In the Batch field, search for and select InFusion Globals, and then click Next.
7. On the Review page, click Submit.
8. Click OK and View Checklist.
9. Click Refresh until the Transfer Batch process status displays as complete.

Verifying the Transfer
1. In the workbook, navigate to the Batch Messages Sheet.
2. Navigate to the Batch Content Sheet.
   You should see the status displayed as transferred.
3. Navigate back to the Batch Message Sheet.
   You should see no error messages. The new globals are now available for use in your formulas.

**Payroll Batch Loader Workbooks for Bank Data**

You can use the Payroll batch loader to import bank data from integrated Microsoft Excel workbook templates into the staging tables and transfer that data into the application. This topic explains the tasks you can add to the workbook and the columns you can complete for each task.

This table explains the four tasks that you can add to the workbook that load bank information.

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Bank</td>
<td>Create a bank name and optional bank code, making it available when creating bank branches.</td>
</tr>
<tr>
<td>Create Bank Branch</td>
<td>Create a branch of a bank that already exists. Branch data includes name, number, and identifiers for electronic funds transfers.</td>
</tr>
<tr>
<td>Create External Bank Account</td>
<td>Create a bank account, based on an existing bank and branch, to use in personal payment methods.</td>
</tr>
<tr>
<td></td>
<td><strong>Restriction</strong></td>
</tr>
<tr>
<td></td>
<td>Bank account numbers of source accounts for payments to workers cannot be created using this task.</td>
</tr>
<tr>
<td>Create Personal Payment Method</td>
<td>Create personal payment methods details, such as allocation of electronic funds transfer payments to a worker.</td>
</tr>
<tr>
<td></td>
<td><strong>Tip</strong></td>
</tr>
<tr>
<td></td>
<td>To create personal payment details for external payees, use the Manage Third-Party Payment Methods task in the Payment Distribution work area. There is no batch loader task to manage payments to third parties.</td>
</tr>
</tbody>
</table>

These four tasks have interdependencies. It is recommended that you create separate workbooks for each of these tasks, for each legislative data group where you are adding bank information, to ensure that these dependencies are intact. For example, you can first create multiple banks in one workbook, then create all of the branches together in the next workbook, and so on.

**Bank Columns**

The Create Bank task workbook uses the following columns to create a new bank name and optional bank code identifier.
<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>continue sequentially for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of the bank to create.</td>
</tr>
<tr>
<td>Important</td>
<td></td>
<td>When adding bank names,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ensure that a bank with the same name</td>
</tr>
<tr>
<td></td>
<td></td>
<td>does not already exist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Also, ensure that you follow any</td>
</tr>
<tr>
<td></td>
<td></td>
<td>naming conventions that may be in place.</td>
</tr>
<tr>
<td>Bank Number</td>
<td>No</td>
<td>VARCHAR2(400)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bank number of bank to create.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bank number validation varies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>depending on country-specific rules.</td>
</tr>
</tbody>
</table>

**Bank Branch Columns**

The Create Bank Branch task workbook uses the following columns to create branch information for a specified bank name.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>continue sequentially for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of the name of the bank for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the branch to create.</td>
</tr>
<tr>
<td>Bank Branch Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of branch to create.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Must be unique for the bank name and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>legislative data group that you</td>
</tr>
<tr>
<td></td>
<td></td>
<td>select in the batch header.</td>
</tr>
</tbody>
</table>
Define Elements, Balances, and Formulas

<table>
<thead>
<tr>
<th>Bank Branch Number</th>
<th>Yes</th>
<th>VARCHAR2(120)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Branch number of branch to create. Must be unique for the bank name and legislative data group that you select in the batch header. Branch number validation varies depending on country-specific rules. For example, in Australia, the combined value of bank number and branch number must not exceed six numbers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BIC/SWIFT Code</th>
<th>No</th>
<th>VARCHAR2(120)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bank identifier code or SWIFT code that identifies bank and branch information for payments between two financial institutions. Known as Sort Code in UK or Routing/Transit Number in US.</td>
</tr>
</tbody>
</table>

### External Bank Account Columns

The Create External Bank Account task workbook uses the following columns to create bank accounts, based on existing banks and branches. After you create external bank accounts, they can be available for use in personal payment methods for workers.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Sequence</td>
<td>Yes</td>
<td>NUMBER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enter 1 for the first row and continue sequentially for subsequent rows.</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of existing bank.</td>
</tr>
<tr>
<td>Bank Branch Name</td>
<td>Yes</td>
<td>VARCHAR2(1440)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of existing branch.</td>
</tr>
<tr>
<td>IBAN</td>
<td>No</td>
<td>VARCHAR2(200)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>International bank account number conforming to the ISO standard for uniquely identifying a bank account for payments between banks. For some legislations only.</td>
</tr>
</tbody>
</table>

Define Elements, Balances, and Formulas 24-79
### Account Type

**No**

CHAR(32)

Based on values in the `AR_IREC_BANK_ACCOUNT_TYPES` lookup table. Valid values are:

- CHECKING
- MONEYMRKT
- SAVINGS
- UNKNOWN

### Secondary Account Reference

**No**

VARCHAR2(120)

Usage varies by legislation, for example, this is known as Building Society Number in UK.

### Account Name

**No**

VARCHAR2(1440)

Label used to identify bank account when there are multiple accounts, for example, Checking or Savings.

### Person Number

**Yes**

NUMBER(18)

Payroll relationship ID or third-party payee ID of an existing person with a corresponding TCA party.

### Personal Payment Method Columns

The Create Personal Payment Methods task workbook uses the following columns to set up payment details, such as allocations to electronic funds transfer payments, for individual workers.

<table>
<thead>
<tr>
<th>Column</th>
<th>Required</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Line Sequence        | Yes      | NUMBER
Enter 1 for the first row and continue sequentially for subsequent rows. |
| Effective Start Date | Yes      | DATE
The first date the payment method is available for use. Must be in the format YYYY-MM-DD. |
| Payroll Relationship Number | Yes      | NUMBER(18)
Existing payroll relationship ID that identifies the person whose payment information you want to create. |
### Define Elements, Balances, and Formulas

<table>
<thead>
<tr>
<th>Field</th>
<th>Required</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>No</td>
<td>NUMBER</td>
<td>If Amount is selected as the payment amount type, the amount value.</td>
</tr>
<tr>
<td>Priority</td>
<td>Yes</td>
<td>NUMBER(18)</td>
<td>When there are multiple payment methods for a person, priority identifies which payment method should be processed first.</td>
</tr>
<tr>
<td>Organization Payment Method</td>
<td>Yes</td>
<td>NUMBER(18)</td>
<td>The existing ID of the default organization payment method for the worker’s payroll. If bank account information is provided, this value must be the ID of an electronic funds payment (EFT) method. If it is the ID of another method, such as check or cash, the upload will fail.</td>
</tr>
<tr>
<td>Percentage</td>
<td>No</td>
<td>NUMBER(22)</td>
<td>If Percentage is selected as the payment amount type, the percentage value.</td>
</tr>
<tr>
<td>Payment Amount Type</td>
<td>Yes</td>
<td>VARCHAR2(30)</td>
<td>Determines whether the Amount or Percentage columns are used to specify how much is paid using this payment method. Valid values are Amount or Percentage.</td>
</tr>
<tr>
<td>Bank Account Number</td>
<td>Yes</td>
<td>NUMBER(18)</td>
<td>Must be an existing bank account.</td>
</tr>
</tbody>
</table>

### FAQs for Manage Batch Uploads With Payroll Batch Loader

**How can I access the payroll batch loader?**

Select **Manage Batch Uploads** from the Data Exchange work area. For payroll managers and administrators, select the **Batch Loader** task in the Payroll Administration work area. If a flow includes the batch loader, you can also access it from the Payroll Checklist work area using the Enter Batch task on the Payroll Flow page.

**Can I upload an Excel spreadsheet I create to the batch upload workbook?**

No, you must use the workbook downloaded from the batch loader. The batch loader automatically inserts macros that are essential for the success of your
subsequent processing. You can download the batch upload workbook to your
desktop and edit the data before reloading it.

**How do I modify an Excel workbook template for payroll?**

Integrated Microsoft Excel workbook templates cannot be modified. This
restriction ensures the fields entered correspond exactly to the HCM tables that
receive the uploaded data.

**Load Time Card, Absence, and Benefit Batches**

**Setting Up and Processing Time Entries for Payroll: Critical Choices**

Before you can process time entries in a payroll run, you must complete setup
tasks. These tasks vary depending on your configuration. For example, if your
localization requires time cards, you select a Time Card Required field. If you use
a third-party time provider, you determine which process to use to transfer time
entries.

All configurations must create elements for time entries and submit a process
to create time card calculation components. The following table describes the
remaining setup tasks and processes that vary based on your configuration.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Setup Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time card required by localization</td>
<td>Indicate a time card is required for existing workers. Inform HR specialists to select this field when completing the new hire flow.</td>
</tr>
<tr>
<td>Oracle Fusion Time and Labor</td>
<td>Determine whether to schedule the process that transfers time card entries to payroll.</td>
</tr>
<tr>
<td>Third-party time provider</td>
<td>Create an extract definition of time entry elements that includes the element and mapping IDs. Determine which process to use to transfer time card entries to payroll.</td>
</tr>
<tr>
<td>Third-party payroll provider</td>
<td>Create an extract definition of the time entry data.</td>
</tr>
</tbody>
</table>

Review the following sections based on your configuration.
- Requiring time cards
- Using Oracle Fusion Time and Labor
- Using a third-party time provider
- Using a third-party payroll provider

**Requiring Time Cards**

Some localizations require workers to complete time cards and calculate pay
based on the reported time. If your localization displays the Time Card Required
field, indicate which workers complete time cards.

You have two options for where to select this field.
- HR specialists can select the field on the Employment Information page of
  the new hire flow.
• Payroll managers can select the Manage Payroll Relationship task in the Payroll Calculations work area, and complete the information in the Payment Details section of the Manage Person Details page. The following table shows how the selection of the Time Card Required field determines the hours to process for payroll calculations based on hours multiplied by rate.

<table>
<thead>
<tr>
<th>Time Card Required</th>
<th>Hours Used in Calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Time card entries</td>
</tr>
<tr>
<td>No</td>
<td>Work schedule, if the hours are not entered as element entries</td>
</tr>
</tbody>
</table>

Within your organization, you may have persons who complete time cards, but their time entries are not used to calculate their pay, such as salaried employees who report time for billing purposes. You would not select the Time Card Required field for these persons.

**Using Oracle Fusion Time and Labor**

If you transfer a high volume of time card entries to payroll, consider scheduling the transfer process. For example, you might specify a time after normal working hours to distribute the load on the servers, or increase the frequency to cover peak periods when you expect employees to complete their time cards. You submit the Load Time Card Batches process flow to validate and transfer new and changed time card entries. You can submit the process manually or include it in a payroll flow. Indicate your scheduling preferences on the Schedule page when you submit the flow.

**Using a Third-Party Time Provider**

You create elements for time entry, and then run the Create Time Card Calculation Components process that creates calculation components for the elements and mapping IDs. You must create an extract of these elements and their mapping IDs for your time provider to use when transferring time entries to payroll. You must also decide which transfer process to use. The following figure shows the options available for loading time entries.

![Options for Loading Time Entries](image)

Determine which option to use based on the best practices for your enterprise. All options create calculation cards for each person whose time entries are included in the batch.
<table>
<thead>
<tr>
<th>Option</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the Payroll Batch Loader</td>
<td>Submit the Create Batch process from the Payroll Administration work area to load time card entries.</td>
</tr>
<tr>
<td>Submit the Load Time Card Batches Process</td>
<td>Create an XML file as an attachment using the file format for transferring a batch of time cards. Submit the Load Time Card Batches process from the Payroll Administration or Payroll Checklist work areas to load an XML file.</td>
</tr>
<tr>
<td>Call the Time Card Web Service</td>
<td>Pass the time entries to payroll using the time web service.</td>
</tr>
</tbody>
</table>

**Using a Third-Party Payroll Provider**

If you are using Payroll Interface to transfer information to a third-party payroll provider, you can create an extract that includes the time card entries. Your payroll provider can then use the time card entry data when processing a payroll.

**Validating and Transferring Time Entries in Payroll: Explained**

Most time card applications and providers apply validation rules when workers submit their time cards, such as a minimum and maximum amount of enterable hours, or rules for overtime entry. When you transfer time card entries to payroll, the payroll application applies validations to ensure, for example, that the person is eligible for the time card element and is not terminated.

Aspects of working with time card entries include:
- Validating time entries
- Resolving transfer errors
- Viewing and correcting time entries

**Validating Time Entries**

If you are using Oracle Fusion Time and Labor, payroll validations occur when a time card is saved or submitted. After the time card is routed to an approver, such as the manager of the primary assignment, and the status is Submitted and Approved, the application updates the time card status to Ready to Transfer. When you transfer time card entries to payroll from Oracle Fusion Time and Labor or a third-party supplier, the application validates the time card entries to confirm that the worker has not been terminated and that the worker is eligible for the element. The application rejects time entries for any date beyond the worker's termination date.

**Resolving Transfer Errors**

If you are using Oracle Fusion Time and Labor, the time entry and calculation rules reduce the likelihood of an error when you transfer the time entries. Depending on the error, you can roll back individual records or the entire transfer process. To coordinate the transfer of corrected time entries to payroll, notify the Time and Labor administrator and provide the administrator with the Oracle Enterprise Scheduler job number of the Load Time Card Batches process. After the administrator corrects the cause of the error in Time and Labor, the administrator can reset the status of the time entries that were not transferred successfully to Unprocessed. The next time you transfer the time cards, the process retrieves the time entries.
If you are using a third-party time provider, you can roll back the Load Time Card Batches process, resolve the transfer error with the time provider, and resubmit the Load Time Card Batches process.

**Viewing and Correcting Time Entries**

When you transfer time card entries by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas, the application creates a calculation card for each person whose time is transferred. There is only one time calculation card for each payroll relationship. A time calculation card includes entries for multiple assignments for the same payroll relationship. You can select the Manage Calculation Cards task in the Payroll Calculation work area and view but not update the time entries.

Any updates and corrections must occur in the application the person uses to report time. You can continue to transfer new and updated time entries to payroll until you calculate the payroll for the period that includes the time entries.

**File Format for Importing Time Entries to Payroll**

When you transfer time entries from a third-party provider by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose time entries are transferred. When creating the file, use the XML file format and XML tags described in this topic.

**XML File Format for Transferring Time Entries**

When you create a file to transfer time card entries to payroll, use the following structure.

```xml
<TIME_CARD_LIST>
  <TIME_CARD>...
    <ACTION>
      <TIME_CARD_ID>
        <MAPPING_ID>
          <MAPPING_NAME>
            <LDG_ID>
              <LDG_NAME>
                <HR_TERM_ID>
                  <TERM_NUMBER>
                    <HR_ASSIGNMENT_ID>
                      <ASSIGNMENT_NUMBER>
                        <LEGAL_EMPLOYER_ID>
                          <LEGAL_EMPLOYER_NAME>
                            <TIME_CARD_START>
                              <TIME_CARD_END>
                                <TIME_ITEM_LIST>...
                                  <TIME_ITEM>
                                    <TIME_TYPE>
                                      ...
                                        <PAYMENT_RATE_ID>
                                          <PAYMENT_RATE_NAME>
                                          <RATE_AMOUNT>
                                            <PERIODICITY>
                                              <FACTOR>
                                              <AMOUNT>
                                                <PERIODICITY>
                                                  ...
                                                      <TIME_UNIT>
                                                        <TIME_UOM>
```
**XML Tags**

This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME_CARD_LIST</td>
<td>Parent tag that contains a set of time cards.</td>
</tr>
<tr>
<td>TIME_CARD</td>
<td>Object that contains the information about a specific time card.</td>
</tr>
<tr>
<td>ACTION</td>
<td>Action to perform, such as CREATE, REMOVE, MODIFY.</td>
</tr>
<tr>
<td>TIME_CARD_ID</td>
<td>Unique identifier for this time card.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition.</td>
</tr>
<tr>
<td></td>
<td>Specify the Mapping ID or the Mapping Name. If none is included, the process uses the default interface type Import Time XML and attempts to find a mapping.</td>
</tr>
<tr>
<td>MAPPING_NAME</td>
<td>Name used for the mapping.</td>
</tr>
<tr>
<td></td>
<td>Specify the mapping name or the mapping ID. If none is included, the process uses the default interface type Import Time XML and attempts to find a mapping.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group for this record.</td>
</tr>
<tr>
<td></td>
<td>Specify the identifier or name of the legislative data group. The records in the XML file must belong to the same legislative data group. If you do not include the LDG_ID or the LDG_NAME, the application uses the legislative data group you entered for the Load Time Card Batches process.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>Identifier for the legislative data group for this record.</td>
</tr>
<tr>
<td></td>
<td>Specify the identifier or name of the legislative data group. The records in the XML file must belong to the same legislative data group. If you do not include the LDG_ID or the LDG_NAME, the application uses the legislative data group you entered for the Load Time Card Batches process.</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the time card.</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the time card.</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>TIME_CARD_START</td>
<td>Start date of the time card.</td>
</tr>
<tr>
<td>TIME_CARD_END</td>
<td>End date of the time card.</td>
</tr>
<tr>
<td>TIME_ITEM_LIST</td>
<td>Tag that contains a set of time items.</td>
</tr>
<tr>
<td>TIME_ITEM</td>
<td>Object that contains information about a specific hour item.</td>
</tr>
<tr>
<td>TIME_TYPE</td>
<td>Name supplied by the time application that maps to the payroll element and calculation component.</td>
</tr>
<tr>
<td>PAYMENT_RATE_ID</td>
<td>Identifier for the rate used to calculate the payment amount.</td>
</tr>
<tr>
<td>PAYMENT_RATE_NAME</td>
<td>Name of the rate used to calculate the payment amount.</td>
</tr>
<tr>
<td>RATE_AMOUNT</td>
<td>Actual rate used to calculate the payroll amount.</td>
</tr>
<tr>
<td>AMOUNT</td>
<td>Flat amount used to calculate the rate based on periodicity.</td>
</tr>
<tr>
<td>PERIODICITY</td>
<td>Frequency that determines the rate value, used with amount or rate amount</td>
</tr>
<tr>
<td>FACTOR</td>
<td>Percentage applied to the rate amount to calculate the payment amount</td>
</tr>
<tr>
<td>TIME_UNIT</td>
<td>Number of units for the hours item, for example 8 hours is 8 units</td>
</tr>
<tr>
<td>TIME_UOM</td>
<td>Unit of measure for specifying time unit, such as hours</td>
</tr>
<tr>
<td>TIME_ITEM_START</td>
<td>Start time for the time item</td>
</tr>
<tr>
<td>TIME_ITEM_END</td>
<td>Ending time for the time item</td>
</tr>
<tr>
<td>COST_SEGMENTS</td>
<td>List of the costing segments.</td>
</tr>
<tr>
<td>PROPERTY_LIST</td>
<td>Set of properties for the time item.</td>
</tr>
<tr>
<td>PROPERTY_ITEM</td>
<td>Additional information that is captured. For example, a value definition for the property item State would return State and the name of the State.</td>
</tr>
<tr>
<td>NAME</td>
<td>Name of a property for the time item.</td>
</tr>
<tr>
<td>VALUE</td>
<td>Value of a property for the time item.</td>
</tr>
</tbody>
</table>

**File Format for Importing Pension Deductions to Payroll**

You submit the Load Benefit Batches process from the Payroll Checklist or Payroll Administration work areas. When you transfer pension information from a third-party provider, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose pension information is transferred. When creating the file, use the XML file format and XML tags described below.

**XML File Format for Importing Pension Deductions to Payroll**

When you create a file to transfer pension deduction information to payroll, use the following format.

```xml
<BENEFIT_LIST>
<BENEFIT>
...  
</BENEFIT>
...</BENEFIT_LIST>
```
XML Tags

This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENEFIT_LIST</td>
<td>The outer most tag that contains a set of benefits.</td>
</tr>
<tr>
<td>BENEFIT</td>
<td>Tag containing information about a particular benefit.</td>
</tr>
<tr>
<td>ACTION</td>
<td>The type of action that will be performed, such as CREATE, REMOVE, and MODIFY.</td>
</tr>
<tr>
<td>BENEFIT_ID</td>
<td>Unique identifier for the benefit from the source application. Never use the same ID twice to identify another benefit.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition. This ID is used when creating the benefit in payroll.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>ID of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>HR_TERM_ID</td>
<td>Unique ID for the HR Terms.</td>
</tr>
<tr>
<td></td>
<td>You can provide either the TERM_NUMBER or the HR_TERM_ID. If the TERM_NUMBER is being used to identify the HR Term then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the pension deduction.</td>
</tr>
<tr>
<td>HR_ASSIGNMENT_ID</td>
<td>This is the HR Assignments unique ID. You can provide either the ASSIGNMENT_NUMBER or the HR_ASSIGNMENT_ID. If the ASSIGNMENT_NUMBER is being used to identify the HR Assignment then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the pension deduction.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_ID</td>
<td>ID of the legal employer name that the term or assignment belongs to.</td>
</tr>
<tr>
<td>LEGAL_EMPLOYER_NAME</td>
<td>Legal employer name that the term or assignment belongs to.</td>
</tr>
<tr>
<td>BENEFIT_START</td>
<td>Start date of the benefit.</td>
</tr>
<tr>
<td>BENEFIT_END</td>
<td>End date of the benefit.</td>
</tr>
<tr>
<td>BENEFIT_RATE_ID</td>
<td>ID of the rate that will be used to calculate the payment amount.</td>
</tr>
<tr>
<td>BENEFIT_RATE_NAME</td>
<td>Name of the rate that will be used to calculate the payment amount.</td>
</tr>
<tr>
<td>AMOUNT</td>
<td>Amount that is used to calculate the rate using the periodicity.</td>
</tr>
<tr>
<td>PERIODICITY</td>
<td>Used with the amount or rate, the periodicity is the frequency that determines the rate value.</td>
</tr>
<tr>
<td>BENEFIT_MAX_ELECTION</td>
<td>Determines the annual maximum election amount that can be processed.</td>
</tr>
<tr>
<td>BENEFIT_REF_NUMBER</td>
<td>Employee’s reference number with the provider of the pension (benefit organization).</td>
</tr>
</tbody>
</table>

**Transferring Absence Information to Payroll: Explained**

You can transfer absence information from Oracle Fusion Absence Management or another absence application to Oracle Fusion Global Payroll or Global Payroll Interface for processing. You must complete the required setup in both applications to enable the transfer. You can transfer entitlement, accrual, final disbursement, and discretionary disbursement information.

Transferring absence information to payroll includes the following aspects:

- Creating elements for absence information
- Setting up absence plans
- Transferring absence entries
- Processing absence entries in payroll

**Creating Elements for Absence Information**

To process absence information you must create an element using the Manage Elements page in the Payroll Calculation or Setup and Maintenance work areas. Create an element with a primary classification of Absences and a category of Absence. Complete the element template for the type of absence plan that the element supports.

The element template prompts you for the type of plan. Your selection determines the questions that you will need to answer.
After creating the element, create at least one element eligibility record. If you want to process absence entries in Global Payroll, you must create a payroll formula and associate it to the absence element by creating a status processing rule on the Element Summary page.

**Setting Up Absence Plans**

In Oracle Fusion Absence Management, create absence plans, which can be Accrual, Accrual with Entitlement, or Entitlement plans. Select the *Transfer absence payment information for payroll processing* check box in the Payroll Integration section of the Entries and Balances tab on the Create Absence Plan page. Select the element for the plan in the Element field to provide a link between the absence plan, the element, and the calculation component shown on workers' calculation cards.

**Transferring Absence Entries**

When an absence is recorded in Oracle Fusion Absence Management, the absence information is automatically transferred to the worker’s absence calculation card.

If you use another absence application, you transfer absence information by submitting the Load Absence Batches process from the Payroll Calculation, Data Exchange, or Payroll Administration work areas. The process transfers absence entries to absence calculation cards, where they can be processed by payroll.

When you submit the Load Absence Batches process, specify an XML file as an attachment. The XML file must use the required file format and XML tags.

**Processing Absence Entries in Payroll**

You can process the component details on the absence calculation card in a payroll run.

If you use a third-party payroll application, you can create an HCM extract of the absence entries for processing by your payroll application.

**File Format for Importing Absence Entries to Payroll**

You submit the Load Absence Batches process from the Data Exchange, Payroll Checklist or Payroll Administration work areas. When you transfer absence information from a third-party provider or from Oracle Fusion Absence Management application, you specify the attachment for the XML file. The process creates a new calculation card or updates an existing card for each worker whose absence information is transferred. When creating the file, use the XML file format and XML tags described below.

**XML File Format for Importing Absence Information to Payroll**

When you create a file to transfer absence information to payroll, use the following format.

```xml
<ABSENCE_LIST>
  <ABSENCE>
    <ABSENCE_TYPE>
      <ACTION>
        <ABSENCE_ID>
          <MAPPING_ID>
            <MAPPING_NAME>
            <LDG_ID>
              <LDG_NAME>
```
<HR_TERM_ID>
<TERM_NUMBER>
<HR_ASSIGNMENT_ID>
<ASSIGNMENT_NUMBER>
<ABSENCE_RATE_ID>
<ABSENCE_RATE_NAME>
<ABSENCE_UNIT>
<ABSENCE_UOM>
<ADJUSTMENT_UNIT>
<FACTOR>
<PERIODICITY>
<ABSENCE_START>
<ABSENCE_END>
<ABSENCE_DATE_LIST>
<ABSENCE_DATE>
<LEAVE_DATE>
<ACCRUED_DATE>
<OVERRIDING_FACTOR>
<OVERRIDING_RATE_ID>
<OVERRIDING_RATE_NAME>
<OVERRIDING_UOM>
<OVERRIDING_UNIT>
<ABSENCE_DATE>
<\ABSENCE_DATE_LIST>
<\ABSENCE>
<\ABSENCE_LIST>

### XML Tags

This table describes the purpose of the tags used in the XML file.

<table>
<thead>
<tr>
<th>XML Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSENCE_LIST</td>
<td>The outer most tag that contains a set of absences.</td>
</tr>
<tr>
<td>ABSENCE</td>
<td>Tag containing information about a particular absence.</td>
</tr>
<tr>
<td>ABSENCE_TYPE</td>
<td>The type of absence that is being transferred to payroll, such as accrual,</td>
</tr>
<tr>
<td></td>
<td>accrual with entitlement, or entitlement.</td>
</tr>
<tr>
<td>ACTION</td>
<td>The type of action that will be performed. such as CREATE, REMOVE, and MODIFY.</td>
</tr>
<tr>
<td>ABSENCE_ID</td>
<td>Unique identifier for the absence from the source application. Never use the</td>
</tr>
<tr>
<td></td>
<td>same ID twice to identify another absence.</td>
</tr>
<tr>
<td>MAPPING_ID</td>
<td>Identifier for the payroll component definition. This ID is used when</td>
</tr>
<tr>
<td></td>
<td>creating the absence in payroll.</td>
</tr>
<tr>
<td>MAPPING_NAME</td>
<td>Name used for the mapping.</td>
</tr>
<tr>
<td>LDG_ID</td>
<td>ID of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>LDG_NAME</td>
<td>Name of the legislative data group associated with the record.</td>
</tr>
<tr>
<td>HR_TERM_ID</td>
<td>Unique ID for the HR Terms. You can provide either the TERM_NUMBER or the</td>
</tr>
<tr>
<td></td>
<td>HR_TERM_ID. If the TERM_NUMBER is being used to identify the HR Term then</td>
</tr>
<tr>
<td></td>
<td>you must also provide the legal employer details.</td>
</tr>
<tr>
<td>TERM_NUMBER</td>
<td>Number that identifies the employment terms for the absence.</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HR_ASSIGNMENT_ID</td>
<td>This is the HR Assignments unique ID. You can provide either the ASSIGNMENT_NUMBER or the HR_ASSIGNMENT_ID. If the ASSIGNMENT_NUMBER is being used to identify the HR Assignment then you must also provide the legal employer details.</td>
</tr>
<tr>
<td>ASSIGNMENT_NUMBER</td>
<td>Number that identifies the employment assignment for the absence.</td>
</tr>
<tr>
<td>ABSENCE_RATE_ID</td>
<td>Unique identifier for the absence rate.</td>
</tr>
<tr>
<td>ABSENCE_RATE_NAME</td>
<td>Name of the rate that will be used to calculate the payment amount.</td>
</tr>
<tr>
<td>ABSENCE_UNIT</td>
<td>Unit of time in which the absence is recorded.</td>
</tr>
<tr>
<td>ABSENCE_UOM</td>
<td>The unit of measure being used for the absence (for example, days, hours or weeks).</td>
</tr>
<tr>
<td>ADJUSTMENT_UNIT</td>
<td>Unit of time in which an adjustment is being made to the absence.</td>
</tr>
<tr>
<td>FACTOR</td>
<td>Factor that is used in the calculation of the absence.</td>
</tr>
<tr>
<td>PERIODICITY</td>
<td>Used with the amount or rate, the periodicity is the frequency that determines the absence rate.</td>
</tr>
<tr>
<td>ABSENCE_START</td>
<td>Date the absence started.</td>
</tr>
<tr>
<td>ABSENCE_END</td>
<td>Date the absence ended.</td>
</tr>
<tr>
<td>ABSENCE_DATE_LIST</td>
<td>List of dates in which the absence occurred.</td>
</tr>
<tr>
<td>ABSENCE_DATE</td>
<td>The date the absence is being reported.</td>
</tr>
<tr>
<td>LEAVE_DATE</td>
<td>Date in which the leave of absence took place.</td>
</tr>
<tr>
<td>ACCRUED_DATE</td>
<td>Date in which the absence was accrued.</td>
</tr>
<tr>
<td>OVERRIDING_FACTOR</td>
<td>Factor that is being used to override the calculation of the absence.</td>
</tr>
<tr>
<td>OVERRIDING_RATE_ID</td>
<td>Unique identifier for the rate being used to override the absence.</td>
</tr>
<tr>
<td>OVERRIDING_RATE_NAME</td>
<td>Name of the overriding rate that will be used to calculate the absence.</td>
</tr>
<tr>
<td>OVERRIDING_UOM</td>
<td>The unit of measure being used to override the absence (for example, days, hours or weeks).</td>
</tr>
<tr>
<td>OVERRIDING_UNIT</td>
<td>Unit of time in which an override is being made to the absence.</td>
</tr>
</tbody>
</table>

**FAQs for Load Time Card, Absence, and Benefit Batches**

**Can I correct a time entry in payroll?**

You cannot correct time card entries displayed within the calculation cards. You correct reported time in the time card application and then transfer the time cards to payroll by submitting the Load Time Card Batches process from the Payroll Checklist or Payroll Administration work areas. When the transfer is complete, the person’s calculation card displays the updated time entries.
You can continue correcting and transferring entries until the time entries are processed in the payroll run. If you transfer corrected time entries after the payroll run begins, the process creates retroactive entries that are processed in the next payroll.

**What happens if a time card is transferred after the payroll run starts?**

The time entries are not included in the payroll run. Process the time card entries in the current payroll period as an additional payroll run or submit QuickPay calculations, or process the entries as retroactive pay in the next payroll run.

You have several choices depending on the volume of the late time cards and the frequency of the payroll run.

- If several workers submit late time cards, create a payroll relationship group that includes these workers and process a payroll run for the time card entries.

- If only a few workers submit late cards, process the additional time entries separately by submitting the Calculate QuickPay process.

- If the payroll run occurs frequently, you might pay the time card entries in the next payroll run as retroactive pay.

As an example of retroactive pay, you might submit a weekly payroll flow that includes time card entries reported for that week. If you transfer corrections after the payroll calculation begins, the application creates element entries for the adjusted entries. The adjustments are included as retroactive pay in the next payroll run.
Defining 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
Define Security for Payroll

The 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 Common Workforce Management Configuration

Define Common Workforce Management Configuration: Overview

The Define Common Workforce Management Configuration task list contains tasks that are shared between the Oracle Fusion Time and Labor application and the Oracle Fusion Absence Management application.

Workforce Management
Oracle Fusion Workforce Management provides common architecture that supports applications that handle worker's time-related information. It includes a repository that stores all time-related information and handles common requirements for manipulating such data in a common format.

Manage Repeating Time Periods
The Manage Repeating Time Periods task provides the same functionality and period storage in all of the following setup task lists:

- Define Common Workforce Management Configuration
- Define Absences
- Define Time and Labor

If you are planning to implement Absence Management along with Time and Labor, you can reuse time periods between these two applications. For example, you can create a weekly period, Monday through Sunday, and use it as a time card period, an approval period for time cards, and as an absence accrual processing period.

You can conveniently coordinate the planning and creation of periods across applications by using the task in the Define Common Workforce Management Configuration task list. The functionality is the same and periods can be shared across these applications regardless of which task list you use.

Repeating Time Periods: Explained

A repeating time period is a period definition that repeats itself, such as, a weekly period that starts on a Sunday. Define as many repeating periods as required. Repeating time periods do not overlap and are contiguous.

Create repeating time periods that you can use as approval periods and time card entry periods. The same time period must be used for the time card entry period and time card approval period.
Time Card Entry Periods

Time Card entry periods determine how often workers must fill in their time card. When you configure a worker time processing profile, you associate a repeating time period as time card entry period. For example, if you want time cards to be filled in every week, then you must select a weekly repeating time period.

Approval Periods

An approval period controls when a time card is submitted for approval. When you configure a time consumer set, you associate a repeating time period as an approval period.

Absence Accrual Periods

An absence accrual period is a time interval in which workers accrue time within an accrual term. When you create an absence plan, use the repeating period to determine how often in an accrual term a worker accrues leave.

Repeating Time Period: How It Is Calculated

Define repeating time periods to determine the frequency of time card entry and approval. Saving the definition generates periods for ten years before and after the current date. These time periods are continually generated and are never used up.

Settings that Affect Repeating Period Calculation

Using the Manage Repeating Time Period task, you select values for the period type, period length, and pattern starting date. You can also specify dates within which to test your period definitions. This table describes the settings.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period Type</td>
<td>Weekly</td>
</tr>
<tr>
<td>Period Length</td>
<td>Select Biweekly or specify the number of weeks in a single period.</td>
</tr>
<tr>
<td>Sample Start Date</td>
<td>Enter an example starting date that sets the desired pattern for periods longer than one day.</td>
</tr>
<tr>
<td>Test Dates</td>
<td>Enter start and end dates with a valid range to test whether the generated instances of the time period are as expected. A preview of all period instances within the test start date and test end date is displayed.</td>
</tr>
</tbody>
</table>

How the Period is Calculated

The following table illustrates how the pattern starting date works with the period type and duration to generate repeating periods within the test dates indicated:
<table>
<thead>
<tr>
<th>Period Type</th>
<th>Length of Period</th>
<th>Sample Start Date</th>
<th>Preview Period Dates</th>
<th>Period Generation Logic</th>
<th>Period Examples</th>
</tr>
</thead>
</table>
| Weekly      | Biweekly         | 05/01/12          | Start date: 01/01/12  
End date: 05/31/12      | Starting with the pattern starting date, periods are generated every 14 days. All periods start on the same day of the week. | 10 January - 23 January  
24 January - 6 February  
7 February - 20 February  
21 February - 5 March  
6 March - 19 March  
20 March - 2 April  
3 April - 16 April  
17 April - 30 April  
1 May - 14 May  
15 May - 28 May |
| Monthly     | Calendar month   | 05/04/12          | Start date: 01/01/12  
End date: 07/31/12      | Periods are generated from a specified day in one month up to the day in the following month. | 4 January - 3 February  
4 February - 3 March  
4 March - 3 April  
4 April - 3 May  
4 May - 3 June  
4 June - 3 July |
<table>
<thead>
<tr>
<th>Period</th>
<th>Start date: 05/01/12 End date: 07/31/12</th>
<th>The first of the semimonthly periods starts on the numerical day of the pattern starting date and lasts for 15 days. The second period starts the day after the first period ends, and lasts through the day before the numerical day of the pattern starting date in the next month.</th>
</tr>
</thead>
</table>
| 4 May - 18 May      | 19 May - 3 June                        | 4 June - 18 June                                                                
| 4 June - 18 June    | 19 June - 3 July                       | 4 July - 18 July                                                                                                      |

**Note**

The test start and end dates are not used to generate time periods. The first test period generated might or might not match the pattern starting date you entered, depending on how you define the period and which test dates you select.
Define Absences: Overview

The Define Absences task list contains the tasks to set up absence management for your enterprise. This task list is included in the Workforce Deployment and Compensation Management offerings.

The Define Absences task list includes the following task lists, which are available in the Setup and Maintenance work area.

- Define General Absence
- Define Absence Structures
- Define Absence Formulas and Rates
- Define Absence Time Periods
- Define Eligibility

Corresponding tasks are also available in the Absence Administration work area.

Define General Absence

Use the tasks in this task list to review predefined lookups, value sets, and flexfields that you might want to extend or update before setting up the main absence components, such as absence types and absence plans. The tasks included in the Define General Absence task list are independent of specific absence components, and are not required to set up absences.

Define Absence Structures

Use the tasks in this task list to create these absence components:

- Absence Certifications
- Absence Reasons
- Absence Plans
- Absence Types
- Absence Categories
Define Absence Formulas and Rates

The tasks in the Define Absence Structures task list provide predefined rules that you can use to define your absence policies. However, if you want to set up additional rules, then you can use the Manage Fast Formulas task to write your own formulas and associate them with the absence components.

Use the Manage Rate Definitions task if you want to define the rate of payment during absence periods that pertain to specific absence plans.

Define Absence Time Periods

Use the Manage Repeating Time Periods task if you want to create repeating periods to determine how often a worker accrues leave in an accrual term.

Define Eligibility

Use the Manage Eligibility Profiles task in the Define Eligibility task list to determine the set of eligible workers who can use specific absence plans and absence types.

Setup Sequence

This figure illustrates the sequence for setting up absence management.

1. Begin by optionally extending lookups, value sets, and flexfields based on your requirement. Write fast formulas if you want to include rules in the absence objects in addition to the predefined ones. Create rate definitions if you want to define payment rates for absence plans.

2. Create absence plans to define rules for time accruals and entitlements. Create certification requests that you want workers to complete to continue to receive entitlements during absence periods. Create absence reasons that you want workers to select while recording absences.

3. Create absence types, such as sickness leave or vacation, and associate plans, reasons, and certifications with them.
4. For reporting purposes, create an absence category and associate appropriate absence types with it.

Manage Absence Types, Categories, and Reasons

Absence Management Components: How They Work Together

You set up absence management for your enterprise using these components: absence categories, absence types, absence patterns, absence reasons, absence plans, and action items.

This figure illustrates how absence management components fit together.

Absence Type

When you create an absence type, such as sick leave, you include rules that you want to enforce when users record or manage an absence of that type. For example, you can restrict workers so that they can record absences only of a particular duration and display an alert if the entered duration exceeds the maximum value. You can also decide which fields or sections you want to show or hide for specific user roles when they record or approve an absence of a particular type. You create absence types using the Manage Absence Types page.

Absence Category

Create absence categories to group absence types for reporting and analysis. For example, you can create an absence category called family leave and associate with it absence types, such as maternity, paternity, and child care. You create absence categories and associate absence types using the Manage Absence Categories page.
Absence Pattern

An absence pattern contains a predefined set of rules that you can use as a starting point to create an absence type. When you create an absence type, you must associate with it any of the following predefined patterns:

- Illness or injury
- Childbirth or placement
- Generic absence

For example, if you want to create an absence type for workers to schedule vacation time using the time that was accrued under a vacation accrual plan, you select the Generic absence pattern.

The pattern that you select determines whether special fields appear on the absence type pages, as well as the options available to display and process various aspects of absence recording. For example, the Illness or injury pattern displays a field that enables you to select whether the absence type applies for childbirth or adoption placement. You can review these settings on the Display Features tab when you create an absence type.

Absence Plans

Use absence plans to define rules for accruing leave time and receiving payments during an absence period. You must associate at least one absence plan with an absence type. You create absence plans using the Manage Absence Plans page.

Absence Reasons

You can provide absence reasons to select from when scheduling an absence type. You create absence reasons using the Manage Absence Reasons page. You define absence reasons independently of an absence type, so that you can use the same reasons for multiple absence types. When you create an absence type, you associate the reasons with the type.

Action Items

Associate certification requirements with absence types as action items that mandate documentation to authorize an absence. For example, use the Manage Certifications page to set up a requirement that workers must submit a doctor’s certificate within a stipulated period of time to receive full payment for the absence duration. You then associate the certification requirement to the absence type so that every absence associated with the absence type is subject to that requirement.

Absence Display and Processing Rules: Explained

Control the display of various fields and sections on the absence recording pages for specific user roles. Configure rules related to entry of information into specific fields. Based on the absence pattern that you select, all fields and rules have default values, which you can configure on the Display Features tab when you create an absence type.

You can configure the usages of the following features:
• Approval and processing rules
• Qualified Entitlements section
• Details section display
• Insufficient balance enforcement rule
• Dates and Duration section
• Supplemental Details section

Approval and Processing Rules
The following rules are related to absence approvals and processing:

• Approval processing: Enable this rule if you want all absence submissions to be approved.
• Approvals reset on update: If you enable this rule, approvers can escalate approval of an absence request to a higher level in the approval hierarchy. If you do not enable this rule, only approvers in the first level of the approval hierarchy can approve the absence.
• Deferred processing: If you enable this rule, an absence that you schedule does not have any impact on accrual balance or entitlements until you confirm the absence. You must run the Evaluate Absences process to confirm deferred absences.

Qualified Entitlements Section
Configure this rule to show or hide the Qualified Entitlements section on the absence recording pages. When workers schedule an absence related to a qualification absence plan, the Qualified Entitlements section displays payment percentages that apply during the absence period.

Details Section
Determine whether you want to show or hide the following fields in the Supplemental Details section on the absence recording pages:

• Reasons
• Comments

Insufficient Balance Enforcement Rule
For accrual absence plans, an error message prevents workers from adding an absence if there is insufficient accrual balance.

For qualification absence plans, enable this rule to calculate payment percentages for the absence period based on the payment rules that you defined in the absence plan. If you do not enable this rule, then the worker is entitled to full pay for the entire absence duration.

Dates and Duration Section
Control the processing and display of the following date-related fields that appear on the absence recording pages:

• Absence start date
• Planned absence start date
• Absence end date
• Planned absence end date
• Open ended absence: This rule enables workers to submit an absence without entering an absence end date.
• No intent to return to work
• Condition start date
• Expected date of event
• Actual date of event
• Expected week of event
• Absence start date validation: For accrual plans, configure this rule to determine dates when workers cannot schedule an absence. For qualification plans, configure this rule to determine a specific date, based on the absence start date, when you want to process entitlements for the absence that the worker submitted. You configure this rule in the Absence Start Date Validation dialog box.
• Late notification assessment: For qualification plans, configure this rule in the Late Notification Assessment dialog box to determine the date that qualifies an absence notification as one that was received late. You configure this rule in the Late Notification Assessment dialog box.

Supplemental Details Section
Control the display of the following fields that appear in the Supplemental Details section on the absence recording pages:
• Current authorization status
• Authorization status last updated
• Disease code
• Late notification
• Late notification waived
• Late notification waiver date
• Reporting organization
• Special conditions

Absence Start Date Validation Rule: Examples

Use the examples in this topic to understand how you can use the absence start date validation rule to restrict accrual plan related absence entries to particular dates. You can also use this rule to determine the date when you want to process entitlement calculations for a qualification plan related absence.

You configure the absence start date validation rule in the Display Features tab when you create or edit an absence type.

Configuring the Rule for Accrual Plan Absences Using Two Conditions
You want to enable workers to schedule an absence only if the absence start date is two days later than or equal to the current date. You also want another
condition that prevents workers from scheduling an absence too far in advance; you want workers to schedule an absence only up to three months from the current date.

You configure the first condition of the absence start date validation rule with the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation type</td>
<td>&lt; (earlier than)</td>
</tr>
<tr>
<td>Reference date</td>
<td>System date</td>
</tr>
<tr>
<td>Operand</td>
<td>+</td>
</tr>
<tr>
<td>Time period</td>
<td>2</td>
</tr>
<tr>
<td>UOM</td>
<td>Calendar days</td>
</tr>
</tbody>
</table>

You configure the second condition of the absence start date validation rule with the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation type</td>
<td>&gt; (later than)</td>
</tr>
<tr>
<td>Reference date</td>
<td>System date</td>
</tr>
<tr>
<td>Operand</td>
<td>+</td>
</tr>
<tr>
<td>Time period</td>
<td>3</td>
</tr>
<tr>
<td>UOM</td>
<td>Months</td>
</tr>
</tbody>
</table>

**Configuring the Rule for Qualification Plan Absences Using a Single Condition**

You have defined a qualification plan for workers to schedule maternity absences. Although you want to enable workers to submit the absences, you want to defer processing entitlements for the absences until thirty days after the absence entry date. You configure the absence start date validation rule with the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation type</td>
<td>= (equal to)</td>
</tr>
<tr>
<td>Reference date</td>
<td>System date</td>
</tr>
<tr>
<td>Operand</td>
<td>+</td>
</tr>
<tr>
<td>Time period</td>
<td>30</td>
</tr>
<tr>
<td>UOM</td>
<td>Days</td>
</tr>
</tbody>
</table>

**Absence Late Notification Assessment Rule: Examples**

Use the example in this topic to understand how you can configure the late notification assessment rule to determine when to qualify an absence notification as one that was received late. You configure the late notification assessment rule in the Display Features tab when you create an absence type.
### Configuring the Rule for Qualification Plan Absences

You want to treat an absence notification as timely only if the worker submits it no later than two days after the absence date. You configure the late notification assessment rule with the following information.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation type</td>
<td>&lt;= (earlier than or equal to)</td>
</tr>
<tr>
<td>Reference date</td>
<td>Absence start date</td>
</tr>
<tr>
<td>Operand</td>
<td>+</td>
</tr>
<tr>
<td>Time period</td>
<td>2</td>
</tr>
<tr>
<td>UOM</td>
<td>Days</td>
</tr>
</tbody>
</table>

### Associating Concurrent Absence Plans with an Absence Type: Examples

You define concurrent absence plans to ensure that workers receive payments from multiple plans simultaneously during the absence period. Use the example in this topic to understand how to indicate plans that must offer concurrent entitlement.

**Statutory Plans and Occupational Plans**

In accordance with government-mandated rules of your country, you want to enable workers going on maternity leave to receive simultaneous payments from a statutory qualification absence plan and an occupational maternity absence plan during their absence period. The occupational maternity plan contains rules defined by your enterprise that entitles workers payment in addition to the statutory payment rules.

When you create the statutory plan and the occupational plan, you must select the Enable concurrent entitlement check box in the Plan Attributes tab for both the plans. You must then associate these plans with the maternity absence type when you create that absence type.

### Prioritizing Absence Plans for an Absence Type: Examples

You prioritize absence plans associated with the absence type to determine the order in which the plans must process accrual balances and entitlements. Use the example in this topic to understand how to prioritize plans according to your requirement.

**Prioritizing Multiple Accrual Plans**

You want to enable workers to use vacation time from two accrual absence plans. When workers exhaust time from one plan, they must be able to use time from the other plan. When you associate each of these plans with the absence type, set a higher priority to the absence plan whose accrual balance workers must use first. Set a lower priority to the absence plan whose balance workers must use after they exhaust the other plan's balance.
Prioritizing Multiple Qualification Plans

In accordance with statutory rules, you want workers on long-term absence, such as due to illness or injury, to receive payments from a statutory plan first, and then receive payments from an occupational sickness plan that is specific to your enterprise. Set a higher priority to the statutory plan so that workers are paid from that plan first. Set a lower priority to the occupational sickness plan so that payment rules in that plan are processed after the statutory plan.

Formulas for Absence Type Rules: Explained

Use the Manage Absence Types pages to define absence type rules. However, if you want to define other special rules to suit your requirement, you can write your own formulas.

Formulas for Absence Types

The following table lists the aspects of an absence type for which you can write a formula and identifies the formula type for each.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
<th>Formula Type to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration Conversion</td>
<td>Method to convert the absence duration to other units of measure. For example, your workers’ work schedules are in work hours, but you want to display the duration in work days.</td>
<td>Global Absence Type Duration You can use the formula to convert absence duration values that are in work days or work hours only.</td>
</tr>
<tr>
<td>Validation</td>
<td>Rules in addition to the ones that you can define on the Manage Absence Types pages to check the validity of the absence.</td>
<td>Global Absence Entry Validation</td>
</tr>
</tbody>
</table>

Creating an Absence Type for Scheduling Vacation Time: Worked Example

This example demonstrates how to create an absence type to conform to a specific leave policy of an enterprise.

This table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the name of the absence type?</td>
<td>Vacation</td>
</tr>
<tr>
<td>The absence type must belong to which absence pattern?</td>
<td>Generic absence</td>
</tr>
<tr>
<td>What unit of measure must workers use to record an absence?</td>
<td>Days</td>
</tr>
<tr>
<td>What is the minimum absence duration that workers must schedule to submit the absence?</td>
<td>2 working days</td>
</tr>
<tr>
<td>Can workers schedule an absence whose duration is less than the minimum limit?</td>
<td>Yes, but display a warning message before allowing users to submit the absence.</td>
</tr>
</tbody>
</table>
What is the maximum absence duration that workers can schedule?  
10 working days

Can workers schedule an absence whose duration exceeds the maximum limit?  
No. Display an error message that prevents users from submitting the absence

Can workers schedule partial-day absences?  
No

Who can update absence records after submitting them?  
Managers and workers only

Can workers record absences of this type from a time card?  
Yes

Can workers and managers use the advanced absence entry method to record discontinuous absence dates?  
No. Only administrators can use the advanced absence entry method.

Create the vacation absence type on the Manage Absence Types page. In this example, use this page to specify who can update absences of this type, set maximum and minimum duration limits, and enable the advanced absence entry function during absence scheduling.

**Creating an Absence Type**

1. In the Absence Administration work area, click **Manage Absence Types** to open the Manage Absence Types page.

2. On the Manage Absence Types page, click **Create** to open the Create Absence Type page.

3. On the Create Absence Type dialog box, complete the fields, as shown in this table. Use default values except where indicated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislation</td>
<td>Select your legislation</td>
</tr>
<tr>
<td>Pattern</td>
<td>Generic absence</td>
</tr>
</tbody>
</table>

4. Click **OK**.

5. On the Create Absence Type page, Type Attributes tab, complete the fields, as shown in this table. Use default values except where indicated.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vacation</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>UOM</td>
<td>Days</td>
</tr>
<tr>
<td>Minimum Duration Alert</td>
<td>Warning</td>
</tr>
<tr>
<td>Minimum Duration</td>
<td>2</td>
</tr>
<tr>
<td>Maximum Duration Alert</td>
<td>Error</td>
</tr>
<tr>
<td>Maximum Duration</td>
<td>10</td>
</tr>
<tr>
<td>Partial Day Rule</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Enable worker updates</td>
<td>Select</td>
</tr>
<tr>
<td>Enable manager updates</td>
<td>Select</td>
</tr>
</tbody>
</table>
6. Click the Display Features tab.

7. In the Dates and Duration section, complete the following fields for the Advanced Absence Entry usage rule

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>Not enabled</td>
</tr>
<tr>
<td>Managers</td>
<td>Not enabled</td>
</tr>
<tr>
<td>Administrators</td>
<td>Enabled</td>
</tr>
</tbody>
</table>

8. Click Save and Close.

Creating Payroll Elements for Absence Management: Worked Example

This example demonstrates how to create an absence element for a vacation accrual absence plan. Based on your setup decisions, this procedure creates the following additional elements:

- Accrual element, to process absence liability amounts
- Entitlement element, process payments for absent time during maternity or long term sickness
- Discretionary Disbursement element, to process disbursement of partial time accruals
- Final Disbursement element, to process accrual disbursement when the absence plan enrollment ends

The name of the element is prefixed to each additional element.

The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of an absence plan is this element for?</td>
<td>Accrual with entitlement</td>
</tr>
<tr>
<td>Who is eligible to receive this element?</td>
<td>All workers</td>
</tr>
<tr>
<td>Do you want the element to calculate absence liability?</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you want to use a rate or a flat amount to calculate absence liability?</td>
<td>Rate</td>
</tr>
<tr>
<td>How do you want to calculate the absence liability?</td>
<td>Calculate liability on balance change since last period.</td>
</tr>
<tr>
<td>• Using the full accrual balance?</td>
<td></td>
</tr>
<tr>
<td>• Difference between the current accrual balance and the balance previously used for the liability calculation?</td>
<td></td>
</tr>
<tr>
<td>Does your absence plan enable balance payments when enrollment ends?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does your absence plan enable payment of partial accrual balances?</td>
<td>Yes</td>
</tr>
</tbody>
</table>
How do you want to calculate deductions for paid absences?
- Reduce regular earnings by the amount of the absence payment so that the worker does not get paid twice?
- Select a rate to determine the absence deduction amount?

<table>
<thead>
<tr>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure that you created a rate definition to determine the monetary value of a unit of absence based on the salary. You create a rate definition using the Manage Rate Definitions task in the Setup and Maintenance work area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creating an Absence Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the Absence Administration work area, click Manage Elements in the Tasks pane to open the Manage Elements page. You can also open this page using the Manage Elements task in the Setup and Maintenance work area or the Payroll Calculations work area.</td>
</tr>
<tr>
<td>2. Click Create.</td>
</tr>
<tr>
<td>3. In the Create Element window, complete the fields as shown in this table.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative Data Group</td>
<td>Select your legislative data group.</td>
</tr>
<tr>
<td>Primary Classification</td>
<td>Absences</td>
</tr>
<tr>
<td>Secondary Classification</td>
<td>Select an appropriate value for your legislation, such as vacation.</td>
</tr>
<tr>
<td>Category</td>
<td>Absence</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Click Continue.</td>
<td></td>
</tr>
<tr>
<td>5. On the Create Element: Basic Information page, complete the fields as shown in this table.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>Reporting Name</td>
<td>Vacation Payment</td>
</tr>
<tr>
<td>What type of absence plan is this?</td>
<td>Accrual with entitlement</td>
</tr>
</tbody>
</table>

| 6. Click Next.         |                                                                      |
| 7. On the Create Elements: Additional Details page, complete the fields as shown in this table. Use the default values except where indicated. |

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which balance should be used for the liability calculation?</td>
<td>Balance change since last period.</td>
</tr>
</tbody>
</table>
Define Absences

<table>
<thead>
<tr>
<th>Does this plan enable balance payments when enrollment ends?</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does this plan enable partial payment of absences?</td>
<td>Yes</td>
</tr>
<tr>
<td>How should deductions be made for this plan?</td>
<td>Reduce regular earnings by absence payment</td>
</tr>
</tbody>
</table>

8. Click Next.

9. On the Create Element: Review page, review the information that you entered so far.

10. Click Submit to open the Element Summary page.

Creating Element Eligibility

1. In the Element Overview section of the Element Summary page, click the Element Eligibility node.

2. Click Create Element Eligibility from the Actions menu.

3. In the Element Eligibility section, enter Vacation Payment Open in the Element Eligibility Name text box. Leave the rest of the fields on the page blank.

4. Click Submit.

5. Click Done.

FAQs for Manage Absence Types, Reasons, and Categories

Why can't I see my absence type on the absence categories page?

Ensure that the absence type is active and effective on the current date.

Why can't I see my absence plans and absence reasons on the absence types page?

Ensure that the absence plan and absence reason are active and effective on the current date.

Manage Absence Plans

Absence Plan Types: Critical Choices

An absence plan can be of these types: accrual, qualification, and no entitlement. You create an absence plan using the Manage Absence Plans task in the Absence Administration work area.
Accrual

Use this type to create absence plans that enable workers to accrue time for the purpose of taking paid leave, for example, a vacation plan. Configure rules that determine various aspects of leave time, such as the length and type of the accrual term in which workers accrue time, the maximum time that workers can accrue in a term, and the maximum time that workers can carry forward to the next term.

Qualification

Use this type to create an absence plan where workers qualify for the plan as a result of events, such as long term illness or maternity, and receive payments during the absence period. Configure rules to determine the payment percentages that apply for specific periods during the absence, for specific workers.

No Entitlement

Create absence plans of this type to track paid or unpaid absences without maintaining an accrual balance or providing leave entitlements, such as periodic accruals. As with an accrual plan, you define the length and type of the plan term and configure rules to determine when eligible workers can enroll in the plan. You can also use plans of this type in combination with a qualification plan. For example, use a no-entitlement plan to pay workers if they are not eligible for a standard maternity absence qualification plan.

Qualification Absence Plan Rules: Points to Consider

Configure the following rules when you create an absence qualification plan in accordance with the leave policy of your enterprise:

- Plan term
- Plan eligibility
- Enrollment and termination
- Waiting period
- Payments

Plan Term

A plan term, in the context of an absence qualification plan, is an assessment period for which the Evaluate Absence process calculates entitlements for the total absent time recorded in that period. When you create an absence qualification plan, you must select the type of plan term. For example, you can limit the duration of the plan term to the duration of the absence.

Plan Eligibility

Associate an eligibility profile with the qualification plan to determine the set of workers who are eligible to record an absence that belongs to that plan. You
create the eligibility profile on the Manage Eligibility Profiles task in the Setup and Maintenance work area. Then, you associate the eligibility profile with the absence plan using the Manage Absence Plans task. If you want all employees to be eligible for the absence plan, then do not add an eligibility profile. If you associate multiple absence plans with an absence type, the worker must be eligible for at least one absence plan to record an absence of that type.

**Enrollment and Termination**

Decide when to enroll workers in the qualification plan. Typically, you enroll workers in the plan when a worker or an administrator schedules an absence using an absence type that is associated with a qualification plan. Alternatively, you can use a formula if you must consider other aspects or rules that determine when to enroll workers in the plan.

Decide whether ongoing payments under this plan must continue if a worker is terminated. Decide whether ongoing payments under this plan must continue if a worker is not terminated, but loses eligibility for the plan.

**Waiting Period**

Define a waiting period if you want newly hired workers to be eligible for this plan only after a specific amount of time.

**Payments**

Use an entitlement band matrix to determine the payment percentages that apply for specific time periods during an absence. For example, you want workers who have completed between 5 and 10 years of service to receive 75 percent of pay for up to 10 days of absence. However, you want workers who have completed between 11 and 20 years to receive the same pay percentage, but for 20 days of absence.

Decide how you want to calculate the payment rate of a single unit of absence. You can use a rate definition to include the calculation rules, or use a formula.

**Accrual Absence Plan Rules: Points to Consider**

Configure the following rules when you create an absence accrual plan in accordance with the leave policy of your enterprise:

- Accrual term and frequency
- Plan eligibility
- Enrollment and termination
- Waiting period and vesting period
- Plan limits
- Payments
- Adjustments
Accrual Term and Frequency

An accrual term is a period of time during which workers accrue time. You must specify the type of the accrual term to use for the plan. For example, you can define an accrual term of one calendar year that restarts on January 1, or an accrual term that starts on the worker’s annual hire date and restarts on every anniversary.

Use one of these methods to determine how workers accrue time in an accrual term:

- Award time in increments, also known as accrual periods, throughout an accrual term. Use the worker’s pay periods or define your own repeating periods to determine the number of accrual periods in a term. For example, workers who are paid monthly have 12 accrual periods in a year. The accrual amounts for each accrual period are automatically calculated based on the accrual rate, which is the total amount of time that you want the worker to accrue in an accrual term.

- Award time upfront at the beginning of each accrual term.

Plan Eligibility

Associate an eligibility profile with the accrual plan to determine the set of workers who can enroll in that plan. Use the Manage Eligibility Profiles task in the Absence Administration work area to create the eligibility profile. Then, you associate the eligibility profile with the absence plan using the Manage Absence Plans task. If you want all employees to be eligible for the absence plan, then do not add an eligibility profile. If you associate multiple absence plans with an absence type, the worker must be eligible for at least one absence plan to record an absence of that type.

Enrollment and Termination

Decide when to enroll workers in the accrual plan. You can enroll workers in the plan when the new-hire event or transfer event occurs. Alternatively, you can use a formula if you want to consider other aspects or rules to determine when to enroll workers.

When a worker is terminated, choose when to disenroll the worker from the plan. Choose how you want to deal with negative and positive balances in situations where only plan enrollment ends, or both plan enrollment and employment ends.

Waiting Period and Vesting Period

Define a waiting period if you want newly enrolled workers to start accruing time under that plan only after a specific amount of time elapses after the date of enrollment. Define a vesting period if you want newly enrolled workers to accrue time, but not use it until after a specific amount of time.

Plan Limits

Configure the following plan limits:

- Accrual rate: Determines how much time a worker can accrue in an accrual term.
• Carryover limit: Determines the maximum time that workers can carry over to the next term.

• Ceiling: Determines the maximum leave time that workers can accrue.

Use an accrual band matrix to build criteria using various factors, such as length of service, to determine the set of eligible workers who qualify for specific plan limits. Alternatively, you can use a formula to determine each plan limit.

Payments
Decide how you want to calculate payment of accrual balances for the following scenarios:

• When workers must be paid a different rate during the absence period
• When a part of the accrual balance must be disbursed to workers as cash
• When the cost of accrual balance must be calculated to determine employer liability
• When the accrual balance must be paid to workers when their plan participation ends

Adjustments
You can enable the following types of adjustments that HR specialists can make during maintenance of absence records and entitlements:

• Accrual transfer from previous employment
• Used time transfer from previous employment
• Discretionary disbursements of accrual balance
• Accrual balance transfers across plans

Formulas for Absence Qualification Plan Rules: Explained

Although you can incorporate qualification plan rules in the Manage Absence Plan pages, you can write your own formulas if you want to incorporate other special rules to suit your requirement.

Formulas for Qualification Plan Rules
The following table lists the aspects of a qualification plan for which you can write a formula.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
<th>Formula Type to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling Backward Start Rule</td>
<td>When the rolling backward plan term starts. A rolling backward term is a specific time period that precedes the absence start date.</td>
<td>Global Absence Roll Backward Start Date</td>
</tr>
<tr>
<td>Enrollment Start</td>
<td>When eligible workers can be enrolled in the plan</td>
<td>Global Absence Plan Enrollment Start</td>
</tr>
</tbody>
</table>
Enrollment End | When workers are disenrolled from the plan | Global Absence Plan Enrollment End
---|---|---
Plan Duration Conversion | Method to calculate the absence duration differently. For example, you want to consider only whole working days in a sickness absence in the entitlement calculation. In such cases, you define logic in a formula to convert the absence duration to a value that excludes partial working days. | Global Absence Plan Duration Conversion
Entitlement Definition | Determines payment percentages to apply during the absence period | Global Absence Entitlement
Qualification Band | A level that determines the payment that workers receive for a specific number of days during a long leave of absence based on their length of service. | Global Absence Entitlement

### Formulas for Accrual Plan Rules: Explained

Although you can incorporate accrual plan rules in the Manage Absence Plan page, you can write your own formulas if you want to incorporate other special rules to suit your requirement.

#### Formulas for Accrual Plan Rules

The following table lists the aspects of an accrual plan for which you can write a formula and identifies the formula type for each.

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
<th>Formula Type to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment Start</td>
<td>When eligible workers can be enrolled in the plan.</td>
<td>Global Absence Plan Enrollment Start</td>
</tr>
<tr>
<td>Enrollment End</td>
<td>Date when workers disenroll from the plan.</td>
<td>Global Absence Plan Enrollment End</td>
</tr>
<tr>
<td>Plan Duration Conversion</td>
<td>Method to calculate the absence duration differently. For example, you might have a requirement to consider only whole working days in a vacation absence to update the accrual balance. In such cases, you define logic in a formula to convert the absence duration to a value that excludes partial days.</td>
<td>Global Absence Plan Duration Conversion</td>
</tr>
<tr>
<td>Anniversary Event Rule</td>
<td>Method to determine the employment anniversary date on which you want the accrual plan to restart.</td>
<td>Global Absence Plan Period Anniversary Event Date</td>
</tr>
<tr>
<td>Accrual Vesting</td>
<td>A period during which workers accrue time, but cannot use it.</td>
<td>Global Absence Vesting</td>
</tr>
</tbody>
</table>
Absence Accrual Plan Term Types: Critical Choices

When you create an accrual plan, you must select one of the following term types to define an accrual term during which workers accrue leave:

- Calendar year
- Anniversary year

Calendar Year

The accrual term starts on the month and day of a calendar date that you select. The term restarts next year on the same day. For example, if you select January 1, 2015, the accrual term starts on that day and restarts on January 1, 2016.

Anniversary Year

The accrual term starts on the hire date and restarts on each anniversary. For example, if the enrolled worker’s hire date is May 1, 2015, the accrual term starts on this date and restarts on May 1, 2016. The start date is not affected by the entry of a continuous service date when the worker enrolls in the accrual plan. Although the continuous service date affects length-of-service calculations while processing a waiting period, vesting period, or plan limits defined in an accrual band matrix, it does not affect the accrual term.
Absence Qualification Plan Term Types: Critical Choices

A qualification plan term is an assessment period during which the total absent time recorded in that period is considered for absence entitlement calculations. When you create a qualification absence plan using the Manage Absences Plans task, you must select one of the following plan term types:

- Calendar year
- Rolling backward
- Absence duration

Calendar Year
The qualification plan term starts on the month and day of a calendar date that you select. The duration of the term is one year. For example, if you select January 1, 2015, the qualification term starts on that day and ends on December 31, 2015.

Rolling Backward
In a rolling-backward term, the absence entitlements are calculated based on the total duration of absent time taken for a specific time period that precedes the absence start date. For example, if you specify a one year rolling period, and the worker’s absence start date is January 1, 2015, then the calculation considers the absences that were scheduled from January 2, 2014. You can also configure rules to determine how to deal with absences that overlap rolling backward terms.

Absence Duration
The qualification plan term is based on the absence duration. For example, if a worker schedules a maternity absence from January 1, 2015 to April 15, 2015, then that is the duration of the qualification plan term.

Absence Qualification Plan Term Overlap Rules: Critical Choices

When you define a rolling backward plan term for an absence qualification plan, you must select an overlap rule that determines how to deal with absences where only a partial period overlaps the current term. The examples in this topic will help you understand how you can:

- Use the Include rule to assess absences that overlap current and previous terms
- Use the Exclude rule to ignore the entire absence that overlaps the current and previous terms
- Use the Split rule to assess absences falling within the current term only

The Include Rule
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 term in your qualification plan and set up bands that entitle workers to 20 days of absence at full pay and a further 15 days at half pay. A worker starts sick leave on July 1, 2014 and the assessment period starts on January 1, 2014. The worker was paid previously under the same entitlement plan while on sick leave for a
Define Absences

period of 15 working days from December 20, 2013 to January 7, 2013. Because
the previous absence overlaps the current assessment period and you configured
the plan term to use the Include rule, the worker 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.

The Exclude Rule

If a worker is absent at the beginning of an assessment period, this rule ignores
the entire absence that overlaps the period.

In the example used in the previous scenario, for a rolling backward term that
uses the Exclude rule, the worker 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
worker 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.
The Split Rule

This rule assesses overlapping absences that fall within the current plan term only. In the example used in the previous scenario, for a qualification plan that uses the Split rule, the worker 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.
Absence Accrual Frequency Definition: Critical Choices

When you create an accrual plan, you can award leave time in installments, also known as accrual periods. Decide whether to award time at the start of each payroll period or at the start of each period instance in a repeating time period. The amount of time that is awarded in each accrual period is based on the accrual rate that you define. For example, if the accrual rate is 24 days, then 2 days is awarded to the worker each accrual period.

Payroll Periods
Select Person Primary Frequency from the Accrual Frequency Source list to award time at the start of each payroll period. For example, if the worker enrolled in the plan is paid on a weekly basis, then leave time is awarded once a week.

Repeating Time Periods
The worker accrues time at the start of each instance in a repeating time period. For example, you created a biweekly repeating period that starts on a Monday and you defined your accrual term from January 1, 2014 to December 31, 2014. The worker accrues time every 2 weeks starting from January 6, 2014 to December 8, 2014.

You create the repeating time period using the Manage Repeating Time Periods task in the Absence Administration work area. Then, associate the repeating time period with the accrual absence plan in the Create Absence Plan page.
Absence Accrual Bands: Examples

Use accrual bands to vary accrual benefits to workers on the basis of employment criteria, such as length of service, grade, or other factors. You define accrual bands in the Accrual Matrix section on the Create Absence Plan page. The following examples illustrate the different types of bands that you can create.

Creating Bands Based on Length of Service

You want to create one accrual band for workers who have completed 1 through 5 years of service, and another, for those who have completed over 6 years of service, as shown in the following table.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Length of Service</th>
<th>Accrual Rate</th>
<th>Maximum Carryover</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 through 5</td>
<td>15</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>6 through 99</td>
<td>20</td>
<td>15</td>
<td>60</td>
</tr>
</tbody>
</table>

Use the expression builder to create the following expressions for the two bands:

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>([LengthOfService] &gt;= 1) AND ([LengthOfService] &lt;= 5)</td>
</tr>
<tr>
<td>2</td>
<td>[LengthOfService] &gt;= 6</td>
</tr>
</tbody>
</table>

Creating Bands Based on Location and Length of Service

You want to create accrual bands of varying length of service for workers who belong to specific geographic locations, as shown in the following table.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Location</th>
<th>Length of Service</th>
<th>Accrual Rate</th>
<th>Maximum Carryover</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paris</td>
<td>1 through 5</td>
<td>15</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>6 through 10</td>
<td>20</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>3</td>
<td>Tokyo</td>
<td>1 through 3</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>4 through 5</td>
<td>15</td>
<td>15</td>
<td>45</td>
</tr>
</tbody>
</table>

Use the expression builder to create the following expressions for the two bands:

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[Person.Location] = &quot;Paris&quot; AND ((LengthOfService) &gt;= 1) AND ((LengthOfService) &lt;= 5)</td>
</tr>
<tr>
<td>2</td>
<td>[Person.Location] = &quot;Paris&quot; AND ((LengthOfService) &gt;= 6) AND ((LengthOfService) &lt;= 10)</td>
</tr>
</tbody>
</table>
Creating Date-Effective Accrual Bands Based on Grade

Your enterprise wants to change its leave policies every year in accordance with government regulations, as shown in the following table.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Effective Start Date</th>
<th>Grade Range</th>
<th>Accrual Rate</th>
<th>Maximum Carryover</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>April 1, 2014</td>
<td>A1 - A3</td>
<td>15</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>A1 - A6</td>
<td>20</td>
<td>15</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>April 1, 2015</td>
<td>A1 - A3</td>
<td>20</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>A1 - A6</td>
<td>25</td>
<td>15</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Set the session effective date to April 1, 2014 and create band 1 and band 2 using the following expressions:

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
</table>

Save your work and set the session effective date to April 1, 2015. Then, create band 3 and band 4 using the same expressions that you used for band 1 and band 2:

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
</table>

Absence Qualification Bands: Examples

Use qualification bands to determine the payment percentages that workers receive for specific periods of time during a long leave of absence based on employment criteria, such as length of service, grades, or other factors. You define accrual bands in the Qualification Band Matrix section on the Create Absence Plan page. The examples in this topic illustrate the different types of bands that you can create.
Creating a Single Payment Band for Multiple Length of Service Ranges

You want workers who have completed between 5 and 10 years of service to receive 75% of pay for up to 10 days of absence. Workers who have completed between 11 and 20 years must receive the same pay percentage, but up to 20 days of absence. This table shows the band information that you must create using the expression builder in the Qualification Band Matrix section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>([LengthOfService] &gt;= &quot;5&quot;) AND ([LengthOfService] &lt;= &quot;10&quot;)</td>
</tr>
<tr>
<td>2</td>
<td>([LengthOfService] &gt;= &quot;11&quot;) AND ([LengthOfService] &lt;= &quot;20&quot;)</td>
</tr>
</tbody>
</table>

For each band that you create in the Qualification Band Matrix section, you must create band details in the Qualification Details section. This table shows the band details that you must create for Band 1, which you created for workers who have completed between 5 and 10 years of service.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75 percent up to 10 days of absence</td>
<td>10</td>
<td>75</td>
</tr>
</tbody>
</table>

This table shows the band details that you must create for Band 2, which you created for workers who have completed between 11 and 20 years of service.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75 percent up to 20 days of absence</td>
<td>20</td>
<td>75</td>
</tr>
</tbody>
</table>

Creating Multiple Payment Bands for a Grade Range

You want all workers who belong to grade A1 and above to receive 100% of pay for up to 10 days of leave, and 75% of pay up to a further 15 days of leave. This table shows the band information that you must create using the expression builder in the Qualification Band Matrix section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[Person.Grade] &gt;= &quot;A1&quot;</td>
</tr>
</tbody>
</table>

This table shows the band details that you must create for Band 2 in the Qualification Details section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 percent pay up to 10 days of absence</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>75 percent pay for the next 15 days</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>
Creating Multiple Payment Bands for Multiple Length of Service and Grade Ranges

You want workers 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. Workers who have completed more than 5 years of service and who belong to the A1 grade must be eligible for full pay up to 10 days of absence and 75% of pay for a further 15 days of absence. This table shows the band information that you must create using the expression builder in the Qualification Band Matrix section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[LengthOfService] &lt;= &quot;5&quot;</td>
</tr>
<tr>
<td>2</td>
<td>([LengthOfService] &gt; &quot;5&quot;) AND ([Person.Grade] = &quot;A1&quot;)</td>
</tr>
</tbody>
</table>

This table shows the band details that you must create for Band 1 in the Qualification Details section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75 percent pay up to 10 days of absence</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>50 percent pay for the next 15 days</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>

This table shows the band details that you must create for Band 2 in the Qualification Details section.

<table>
<thead>
<tr>
<th>Band Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 percent pay up to 10 days of absence</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>75 percent pay for the next 15 days</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>

Absence Accrual Balance Adjustment Options: Critical Choices

You can enable the following types of adjustments that are available to HR specialists during maintenance of absence records and entitlements:

- Accrual transfer from previous employment
- Used time transfer from previous employment
- Accrual balance transfers across plans
- Discretionary disbursements of accrual balance
- Adjustments for other reasons

You can enable these options on the Entries and Balances tab when you create an absence accrual plan. To make adjustments, HR specialists must select Balance.
Adjustments in the Enrollment Actions menu on the Maintain Absence Records and Entitlements page.

Accrual Transfer from Previous Employment

This adjustment option enables HR specialists to add leave time to the accrual plan in which they enrolled the newly transferred worker. Before HR specialists make this adjustment, they must review the old accrual plan balance of the worker on the Maintain Absence Records and Entitlements page to determine how much leave time to add to the new plan balance.

Used Accrual Time Transfer from Previous Employment

Transferred workers might have already scheduled leave time from plans in which they were enrolled in their previous organization. This adjustment option enables HR specialists to deduct the used leave time from the current plan that the worker is enrolled in. Before HR specialists make this adjustment, they must review the old accrual plan balance of the worker on the Maintain Absence Records and Entitlements page to determine how much leave time to deduct from the new plan balance.

Accrual Balance Transfers Across Plans

This adjustment option enables HR specialists to select a source plan and specify an amount of time to transfer to a target plan balance. Before HR specialists make this adjustment, they must review the plan balances of the source and target plans on the Maintain Absence Records and Entitlements page to determine if the worker has enough time in the source plan balance to transfer to the new plan balance.

Discretionary Disbursements of Accrual Balance

This adjustment option enables HR specialists to pay out a part of the plan’s accrual balance to the worker. If you select this option, you must also select a disbursement rate rule in the Rates section to determine how to calculate the payment.

Adjustments for Other Reasons

This adjustment option enables HR specialists to make special adjustments to plan balances, for example award leave time to a worker for exemplary performance at work. Define reasons for adjustments. When HR specialists make adjustments on the Maintain Absence Records and Entitlements page, they can select an adjustment reason that you defined.

Creating a Vacation Absence Accrual Plan: Worked Example

This example contains steps to create an absence accrual plan for the purpose of taking vacation leave.

The following table summarizes key decisions in this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is eligible for this plan?</td>
<td>All employees</td>
</tr>
</tbody>
</table>
Define Absences

What unit of measure should this plan use to process absences?

- Days

What is the start date and length of the accrual plan term?

- Start on January 1 and restart on the same day in the following year.

When can workers start accruing leave time on the plan?

- 1 month after hire date

When can workers start using the leave time that they accrued?

- 2 months after hire date

How much leave time can workers accrue in a term?

- Workers who belong to grade A and B accrue at the rate of 15 days each accrual term. They can carry over 5 days to the next term.
- Workers who are grade C and D accrue at the rate of 12 days each accrual term. They can carry over 2 days to the next term.

Do you want workers to accrue time for the whole term at once or accrue in increments?

- Accrue time each pay period.

What is the maximum leave time that workers can accrue?

- 40 days

Can workers use more time than their standard accruals during the plan term?

- Yes, up to 5 days

How do you want to calculate cash disbursals of partial accrual balances at any time?

- Payment of a unit of absence must be based on 50 percent of the salary amount on the date of cash disbursal.

How do you want to calculate final balance payments when a worker is terminated?

- Payment of a unit of absence must be based on the salary amount on the date of termination.

Task Summary

Before you create the absence plan, complete these steps:

- Create two rate definitions to calculate payments.
- Create an element that stores payments for payroll processing.

Then, create the absence plan.

Prerequisites

1. In the Setup and Maintenance work area, use the Manage Rate Definitions task to create two rate definitions that calculate payment of a unit of absence based on:
   - 50 percent of the salary amount
   - 100 percent of the salary amount

2. In the Setup and Maintenance work area, use the Manage Elements task to create a nonrecurring element using Absences as the primary classification and Vacation as the secondary classification. In the Absence Plan Details section, ensure that you select the Accrual with Entitlement absence plan type. When you create the element, select Yes for these questions:
   - Does this plan enable balance payments when enrollment ends?
• Does this plan enable partial payment of balance?
  To enable payroll processing, ensure that you create a payroll formula and associate it to the element by creating a status processing rule on the Element Summary page.

Creating the Absence Plan
  1. In the Setup and Maintenance work area, search for the Manage Absence Plans task, and click Go to Task.
  2. On the Manage Absence Plans page, click Create.
  3. In the Create Absence Plan dialog, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislation</td>
<td>Select your legislation.</td>
</tr>
<tr>
<td>Plan Type</td>
<td>Accrual</td>
</tr>
</tbody>
</table>

4. Click Continue.

5. On the Create Absence Plan page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>Vacation</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>Plan UOM</td>
<td>Days</td>
</tr>
<tr>
<td>Type</td>
<td>Calendar year</td>
</tr>
<tr>
<td>Calendar</td>
<td>Select January 1 of the current year. The values for the start month and start day of the plan term appear based on the date that you select.</td>
</tr>
<tr>
<td>Term Duration UOM</td>
<td>Months</td>
</tr>
<tr>
<td>Start Rule</td>
<td>Absence Start Date</td>
</tr>
<tr>
<td>Overlap Rule</td>
<td>Include</td>
</tr>
</tbody>
</table>

6. Click Save.

7. Click the Participation tab, and complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting Period UOM</td>
<td>Months</td>
</tr>
<tr>
<td>Duration</td>
<td>1</td>
</tr>
<tr>
<td>Field</td>
<td>Value</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Accrual Method</td>
<td>Incremental</td>
</tr>
<tr>
<td>Accrual Frequency Source</td>
<td>Person primary frequency</td>
</tr>
<tr>
<td>Accrual Vesting Rule</td>
<td>Elapsed period</td>
</tr>
<tr>
<td>Duration</td>
<td>2</td>
</tr>
<tr>
<td>UOM</td>
<td>Months</td>
</tr>
<tr>
<td>Ceiling Rule</td>
<td>Flat amount</td>
</tr>
<tr>
<td>Ceiling</td>
<td>40</td>
</tr>
<tr>
<td>Carryover Rule</td>
<td>Include in matrix</td>
</tr>
<tr>
<td>Negative balance allowed</td>
<td>Select.</td>
</tr>
<tr>
<td>Negative Balance Limit</td>
<td>5</td>
</tr>
</tbody>
</table>

10. In the Accrual Matrix section, create accrual bands, as shown in this table.

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Expression</th>
<th>Accrual Rate</th>
<th>Carryover Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>((Person.Grade = &quot;A&quot;) OR (Person.Grade = &quot;B&quot;)</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>((Person.Grade = &quot;C&quot;) OR (Person.Grade = &quot;D&quot;)</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

11. Click **Save**.

12. Click the Entries and Balances tab, and complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Balance Payment Rule</td>
<td>Select the rate definition that you created as part of the prerequisite task.</td>
</tr>
<tr>
<td>Disbursement Rate Rule</td>
<td>Select the rate definition that you created as part of the prerequisite task.</td>
</tr>
<tr>
<td>Transfer absence payment information for payroll processing</td>
<td>Select</td>
</tr>
<tr>
<td>Element</td>
<td>Select the element that you created as part of the prerequisite task.</td>
</tr>
</tbody>
</table>

13. Review the information you entered in all the tabs.

14. Click **Save and Close**.
Creating a Maternity Absence Qualification Plan: Worked Example

This example demonstrates how to create an absence qualification plan for employees taking maternity leave.

The following table summarizes key decisions in this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is eligible for this plan?</td>
<td>Only full time regular employees</td>
</tr>
<tr>
<td>What unit of measure should this plan use to process absences?</td>
<td>Weeks</td>
</tr>
<tr>
<td>What is the plan term to assess entitlements?</td>
<td>6 months, rolling backward from the absence start date</td>
</tr>
<tr>
<td>How to deal with absences that overlap the plan term?</td>
<td>Use the Include rule to assess the entire absence</td>
</tr>
<tr>
<td>How to deal with a situation where a worker is terminated or loses eligibility during the course of receiving entitlements from the plan?</td>
<td>Continue entitlements if worker is terminated. Stop entitlements if worker loses eligibility.</td>
</tr>
<tr>
<td>For how much leave time are workers entitled to receive payment?</td>
<td>Workers who have completed less than 5 years of service are entitled to receive payment for 8 weeks at 90 percent pay followed by a further 16 weeks at 50 percent pay. Employees who have completed more than 5 years of service are entitled to receive payment for the first 6 weeks at full pay followed by 12 weeks at 75 percent pay.</td>
</tr>
<tr>
<td>How should payments be calculated?</td>
<td>Payment of a unit of absence must be based on the declared salary</td>
</tr>
<tr>
<td>Transfer payments for payroll processing?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Task Summary**

Before you create the absence plan, complete these steps:

- Create an eligibility profile so that only full-time employees are eligible for the plan
- Create a rate definition to calculate payments.
- Create an element that stores payments for payroll processing.

Then, create the absence plan.

**Prerequisites**

1. In the Setup and Maintenance work area, use the Manage Eligibility Profiles task to create a participant eligibility profile to restrict eligibility of the absence plan to full time regular workers. In the Employment tab, Assignment Category subtab, ensure that you select Full-time regular from the Full Time or Part Time list.

2. In the Setup and Maintenance work area, use the Manage Rate Definitions task to create a rate definition for payment of a unit of absence based on the declared salary on the absence start date.
3. In the Setup and Maintenance work area, use the Manage Elements task to create a nonrecurring element using Absences as the primary classification and Maternity as the secondary classification. In the Absence Plan Details section, select the Accrual with Entitlement absence plan type.

To enable payroll processing, ensure that you create a payroll formula and associate it to the element by creating a status processing rule on the Element Summary page.

Creating the Absence Plan

1. In the Setup and Maintenance work area, search for the Manage Absence Plans task, and click Go to Task.

2. On the Manage Absence Plans page, click Create.

3. In the Create Absence Plan dialog, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislation</td>
<td>Select your legislation.</td>
</tr>
<tr>
<td>Plan Type</td>
<td>Qualification</td>
</tr>
</tbody>
</table>

4. Click Continue.

5. On the Create Absence Plan page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>Maternity</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>Plan UOM</td>
<td>Weeks</td>
</tr>
<tr>
<td>Type</td>
<td>Rolling backward</td>
</tr>
<tr>
<td>Term Duration</td>
<td>6</td>
</tr>
<tr>
<td>Term Duration UOM</td>
<td>Months</td>
</tr>
<tr>
<td>Start Rule</td>
<td>Absence Start Date</td>
</tr>
<tr>
<td>Overlap Rule</td>
<td>Include</td>
</tr>
</tbody>
</table>

6. Click Save.

7. Click the Participation tab.

8. In the Participation tab, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Loss of Plan Eligibility Only, Terminete Entitlement</td>
<td>Select</td>
</tr>
</tbody>
</table>
9. Click Save.

10. Click the Entitlements tab.

11. In the Entitlement Attributes section, select Matrix.

12. In the Qualification Band Matrix section, click Add, and complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 weeks at 90 percent pay</td>
<td>8</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>16 weeks at 50 percent pay</td>
<td>16</td>
<td>50</td>
</tr>
</tbody>
</table>

13. In the Qualification Band Matrix section, click the LengthOfService < 5 row.

14. In the Qualification Details section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Detail Name</th>
<th>Duration</th>
<th>Payment Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6 weeks at full pay</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>12 weeks at 75 percent pay</td>
<td>12</td>
<td>75</td>
</tr>
</tbody>
</table>

15. In the Qualification Band Matrix section, click the LengthOfService > 5 row.

16. In the Qualification Details section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence Payment Rate Rule</td>
<td>Select the rate definition that you created as part of the prerequisite task.</td>
</tr>
</tbody>
</table>
19. Review the information you entered in all the tabs.

20. Click Save and Close.

Manage Absence Certifications

Absence Certification Requirement Components: Points to Consider

Absence certification requirements are action items that workers must complete to continue receiving entitlements during an absence period. For example, you can configure a requirement to revise pay for workers on sickness leave who do not provide a doctor’s certificate within a stipulated time.

You create certification requirements for absences using the Manage Absence Certifications task in the Absence Administration work area. Then, you associate the certification requirements with an absence type on the Action Items tab of the Create Absence Type page. Absences that workers schedule using that absence type are subject to the corresponding certification requirements.

When you create a certification requirement, you configure the following aspects of a certification requirement:

- Requirement type
- Requirement trigger
- Requirement phases and actions
- Requirement status during absence recording
- Entitlement reevaluations

Requirement Type

You can use any of the following types to define a certification requirement:

- Authorization: Select this type if workers must complete an action item to receive entitlements. For example, you can require workers to submit certain medical reports and other documents to continue to receive entitlements for the absence period.

- Timeliness: Select this type to define the actions to take depending on when workers notify their managers about their absence. For example, you might want to revise entitlements for workers who have provided a late notification of their absence.

- Other: Select this type if you want to consider other special requirements. For example, you can define a certification requirement that HR
specialists can initiate at any time to retract absence entitlements for a worker whose employment ends.

**Requirement Trigger**

Use one of the following methods to determine when the certification requirement takes effect:

- On demand: HR specialists add the certification requirement as an action item when they record an absence for a worker on the Maintain Absence Records and Entitlements page.

- On the absence start date: The certification requirement appears as an action item in the Edit Absence dialog box on the Maintain Absence Records and Entitlements page.

When the certification requirement becomes effective, it appears as an action item during absence recording in the Maintain Absence Records and Entitlements page. HR specialists can then set the status of the action item on the basis of documents or other information that the worker provides.

**Certification Requirement Phases and Actions**

When a worker schedules an absence that is subject to a certification requirement, you decide what actions to take in each of the following phases of the requirement:

- On creation: When the certification requirement takes effect. Sometimes, your certification requirement might not require any action from the worker to complete it. For example, you might want to retract entitlements when the worker is terminated with no further action required from the worker. In that case, you can configure the certification requirement to complete automatically when it becomes effective.

- On passage of due date

- On completion: When HR specialists evaluate the action item corresponding to the certification requirement and mark it complete.

For each phase, you can perform the following actions:

- Set the certification status that appears during absence recording.
- Notify employees, managers, and administrators.
- Reevaluate entitlements

**Certification Status during Absence Recording**

When you create an authorization requirement or a timeliness requirement, a corresponding status field, known as the target field, appears when a worker schedules an absence that is subject to that requirement. For an authorization requirement, the target field is Primary Certification Authorized. For a timeliness requirement, the target field is Late Notification.

You can specify the value of the target field depending on the phase of the requirement. For example, you can configure the target field on the absence recording page to display True when a worker provides the required documents to complete a certification requirement.
Entitlement Reevaluations

Depending on the status of the certification requirement, you can reevaluate entitlements that a worker receives during the absence period. Reevaluate entitlements as of the absence start date or the action date.

For example, you can change the worker’s entitlement to half pay as of the absence start date when a certification requirement has passed its due date. When the worker completes the requirement, you can recalculate the entitlements from the absence start date or the completion date.

Use any of these rules to calculate entitlements:

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override</td>
<td>Enables entry of a revised payment percentage that overrides the payment rules defined in the absence plan.</td>
</tr>
<tr>
<td>Recalculate</td>
<td>Calculates payments according to the payment rules in the absence plan.</td>
</tr>
<tr>
<td>Retract</td>
<td>Stops payments.</td>
</tr>
</tbody>
</table>

Creating an Absence Certification Requirement: Worked Example

This example contains steps to create an absence certification requirement for workers on long term sickness leave.

The following table summarizes key decisions in this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What action do you want workers to take to complete the certification requirement?</td>
<td>Submit a doctor’s certificate to the manager within 14 calendar days of their absence start date.</td>
</tr>
<tr>
<td>What action do you want to take if workers do not complete the requirement within the stipulated time?</td>
<td>Revise entitlement for the rest of the absence period to 75 percent of pay.</td>
</tr>
<tr>
<td>When do you want the certification requirement to take effect?</td>
<td>On the absence start date</td>
</tr>
<tr>
<td>How do you want to configure the value of the Primary Certification Authorized field during absence recording?</td>
<td>Set status to True when the certification requirement triggers on the absence start date. Set status to False when the due date of the certification requirement passes. Set status to True when the worker completes the certification requirement.</td>
</tr>
<tr>
<td>Who do you want to notify about the status of the certification requirement and when?</td>
<td>Notify workers and managers in these situations:</td>
</tr>
<tr>
<td></td>
<td>• When the requirement comes into effect</td>
</tr>
<tr>
<td></td>
<td>• When the due date has passed</td>
</tr>
<tr>
<td></td>
<td>• When the requirement is complete</td>
</tr>
</tbody>
</table>
Creating a Certification Requirement

1. In the Absence Administration work area, click **Manage Absence Certifications** to open the Manage Absence Certifications page.

2. Click Create.

3. On the Create Absence Certification page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Submit Doctor’s Certificate</td>
</tr>
<tr>
<td>Type</td>
<td>Authorization</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
</tr>
<tr>
<td>Trigger</td>
<td>On initial absence entry</td>
</tr>
<tr>
<td>Due Date Rule</td>
<td>Waiting period</td>
</tr>
<tr>
<td>Waiting Period Start Date</td>
<td>Absence start date</td>
</tr>
<tr>
<td>Duration</td>
<td>14</td>
</tr>
<tr>
<td>UOM</td>
<td>Calendar days</td>
</tr>
</tbody>
</table>

4. In the On Creation section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Field Update</td>
<td>True</td>
</tr>
<tr>
<td>Notify Employee</td>
<td>Select</td>
</tr>
<tr>
<td>Notify Manager</td>
<td>Select</td>
</tr>
</tbody>
</table>

5. In the On Passage of Due Date section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Field Update</td>
<td>False</td>
</tr>
<tr>
<td>Entitlement Reevaluation Rule</td>
<td>As of action date</td>
</tr>
<tr>
<td>Entitlement Update Rule</td>
<td>Override</td>
</tr>
<tr>
<td>Revised Payment Percentage</td>
<td>75</td>
</tr>
<tr>
<td>Notify Employee</td>
<td>Select</td>
</tr>
<tr>
<td>Notify Manager</td>
<td>Select</td>
</tr>
</tbody>
</table>

6. In the On Completion section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Field Update</td>
<td>True</td>
</tr>
<tr>
<td>Notify Employee</td>
<td>Select</td>
</tr>
<tr>
<td>Notify Manager</td>
<td>Select</td>
</tr>
</tbody>
</table>
7. Click **Save and Close**.
**Define Time and Labor: Overview**

Use the Define Time and Labor task list to create and update configurable time entry displays, validations, and calculation rules for entry, approval, and transfer of time to time consumers. This task list is available in the Setup and Maintenance work area.

The Define Time and Labor task list includes the following task lists:
- Define Time Entry Configuration
- Define Time Rules
- Define Time and Labor Setup Profiles

**Define Time Entry Configuration**

Use the tasks in this task list to create and update time entry formats to provide flexible forms of time entry.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Workforce Management Lookups</td>
<td>Update lookups that are used in Oracle Fusion Workforce Management. The Classification lookup, which is used to filter search results and to group rules and rule templates, is the only lookup that you can update. Add new classification lookup codes for the Workforce Management Rule Classification lookup type (HWM_RULE_CLASSIFICATION) and set the Tag column for the lookup code to TER for time entry rule or TCR for time calculation rule. Classifications are based on the rule type. For example, you can use the threshold or weekend premium classification for a time calculation rule or the business message classification for a time entry rule.</td>
</tr>
<tr>
<td>Manage Time and Labor Value Sets</td>
<td>Create and update sets of values for use in time card fields.</td>
</tr>
<tr>
<td>Manage Workforce Management Value Sets</td>
<td>Create and update sets of values for use in rule templates and time categories.</td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Manage Repeating Time Periods</td>
<td>Create and update time period definitions that produce repeating periods for use as approval periods and time card entry periods.</td>
</tr>
<tr>
<td>Generate Data Dictionary Time Attributes</td>
<td>Create time attributes for payroll time types and absence types that are used to create time card fields. Defined attributes are available in the Manage Time Card Fields page.</td>
</tr>
<tr>
<td>Generate Time Card Fields</td>
<td>Create multiple attribute time card fields for the selected legislative data group and the option to include absence types when defining time card fields.</td>
</tr>
<tr>
<td>Manage Time Card Fields</td>
<td>Create and update a collection of properties that enables different user groups to report time against different time attribute values. Associate a data source, which is either a value set or a delivered view object, with each time card field.</td>
</tr>
<tr>
<td>Manage Time Layout Sets</td>
<td>Create and update a collection of different time entry layouts for entering, reviewing, and approving time. Associate time card fields with layout sets.</td>
</tr>
<tr>
<td>Manage Time Categories</td>
<td>Create and update a group of time entries that is used for summarizing, validating, and transferring time and for processing time rules. Create time categories by specifying the time attribute fields.</td>
</tr>
<tr>
<td>Manage Time Consumer Sets</td>
<td>Create and update time consumer sets to define a set of rules for each time consumer, such as approval periods, timing of validations, time categories for validations and transfer of time.</td>
</tr>
<tr>
<td>Manage HCM Groups</td>
<td>Create group definitions that are used by Oracle Fusion Time and Labor.</td>
</tr>
<tr>
<td>Evaluate HCM Group Membership</td>
<td>Evaluate the membership of an HCM group and populate the group based on a specific date or range of dates. You must run this process so that workers can report time. The predefined groups must be refreshed during implementation so that all workers in the enterprise are assigned a default layout set and default profiles.</td>
</tr>
</tbody>
</table>

**Define Time Rules**

Use the tasks in this task list to create time entry and time calculation rules to be applied on time cards to validate time entries and generate new compensation results.

<table>
<thead>
<tr>
<th><strong>Task</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Fast Formulas</td>
<td>Create fast formulas with a formula type of either time entry rule or time calculation rule. Associate these formulas with rule templates.</td>
</tr>
<tr>
<td>Manage Time Repository Rule Template</td>
<td>Create and update rule templates that enable reuse of a formula to define multiple rules. Templates are predefined combinations of rule parameters, output, and messages that are used to create time entry and time calculation rules. Use time categories in rule templates to summarize time and compare different categories of time.</td>
</tr>
</tbody>
</table>
### Define Time and Labor Setup Profiles

Use the tasks in this task list to create and update worker associations with time entry and time processing setup profiles, which control the entry, approval, and transfer of time to integrating time consumers.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Worker Time Processing Profiles</td>
<td>Create and update an association of rule sets, a time consumer set, and time card periods to report, validate, approve, and transfer time.</td>
</tr>
<tr>
<td>Manage Worker Time Entry Profiles</td>
<td>Create and update an association of a layout set and time entry actions to control access to any time entries.</td>
</tr>
</tbody>
</table>

### Using Absence Management with Time and Labor: Points to Consider

Using Oracle Fusion Absence Management with Oracle Fusion Time and Labor enables time reporters to report absences in the time card and to view accrual balances.

Considerations for using Absence Management with Time and Labor include:

- Prerequisite absence setup
- Absence entry configuration
- Absence entry
- Auto population of absence
- Absence validation configuration
- Absence approvals
- Absence transfer

#### Prerequisite Absence Setup

To report absence types from a time card, the following conditions must be met:

- The worker must have a schedule associated to an assignment.
- The absence type must be configured with units of measure for either hours or calendar days.
- The absence type must be enabled for time cards.
- If the type is associated with plans based on accruals, the worker must be enrolled in the plan and applicable balances must be calculated and available.
Absence Entry Configuration

After the absence types have been created, use the following tasks in the Define Time and Labor task list available in the Setup and Maintenance work area to generate the time card fields for use in time entry layout sets:

- **Generate Data Dictionary Attributes**: Creates data dictionary time attributes for a selected time consumer that categorizes time or defines time card fields.

- **Generate Time Card Fields**: Creates multiple-attribute time card fields using data dictionary time attributes, for the specified legislative data group. Select the option to include absences.

Use the Manage Time Card Fields task to display absence data in various ways for time entry:

<table>
<thead>
<tr>
<th>Time Card Field Options</th>
<th>Time Card Field Description</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence Type</td>
<td>Create a time card field with a single time attribute, which displays only the absence type.</td>
<td>Manage Time Card Field task. Create a single attribute.</td>
</tr>
<tr>
<td>Payroll and Absence Time Type</td>
<td>Create a multiple attribute time card field, which combines absence types and payroll time types. These time types can have different display names for time entry than they have in payroll or absence management.</td>
<td>Run the Generate Time Card Field process. Alternatively, use the Manage Time Card Field task. Create a multiple attribute time card field with two time attribute segments, then manually populate the values and the time attribute deposited.</td>
</tr>
<tr>
<td>Reason Code or Comment</td>
<td>Configure the Reason Code as a dependent time card field that is displayed in the Additional Attributes and Daily Details dialogs of the time card.</td>
<td>Manage Time Card Field task. Create a single or multiple attribute time card field with a dependent time card field for absence reason.</td>
</tr>
</tbody>
</table>

Use the Manage Layout Sets task to specify the time entry format to support absence types and payroll time type entries. Absence entries resolve according to the worker’s schedule:

- Workers with time-based schedule must enter absence in the time card.
- Workers with elapsed or duration schedule enter absence hours in the time card.

Absence Entry

Workers can enter absences by time card entry in the Time work area.

Auto Population of Absence

If an absence has been scheduled for a future time period, then that absence is automatically populated into the time card when the time card is created for that period. Deleting a time card does not delete the relevant absence hours. The worker must delete the absence from the Absence Management application.
Absence Validation Configuration

Validations ensure, for example, that time card users enter absences only for absence types that they are eligible for.

The absence time entries are always validated when the time reporter clicks the Next button to proceed to the Time Card Review page to submit the time card. Clicking Next runs all application validations, as well as any time entry and calculation rules that apply, and generates calculated time.

Using the Manage Time Consumer Sets task, you can configure the validations to also run when the time reporter clicks the Save button.

Clicking the Submit button on the Time Card Review page updates the time card to Submitted status and triggers the approval flow for the time card.

Absence Approvals

If a worker enters an absence using the self service absence management application and if approvals are configured for that absence type, then an approval flow is initiated. If the absence is directly entered in the time card, then the Time Card Approval task is triggered.

Absence Transfer

Time and Labor does not transfer the absence time entries to any time consumer. Absence Management generates the absence entries into Absence Plan Detail results for payment and processes the hours to update accrual balances.

Using Time and Labor with Payroll: Points to Consider

You can integrate Oracle Fusion Global Payroll applications with Oracle Fusion Time and Labor to validate, approve, and transfer reported time entries to payroll for payment.

Consider the following when using Time and Labor with Global Payroll:

- Prerequisite payroll setup
- Time attributes setup
- Time entry configuration
- Time period considerations
- Payroll validation configuration
- Payroll transfer process
- Transfer error resolution

Prerequisite Payroll Setup

You must create elements in Oracle Fusion Global Payroll if you want to capture payroll time types in the time card and pass time to Oracle Payroll or a third party payroll system for processing.

To use a third party payroll provider, you must implement Oracle Fusion Global Payroll Interface to extract the payroll data for your payroll provider.
Required payroll setup by payroll administrators that is specific to integration with Time and Labor includes:

1. Create payroll elements with an input value of Hours within a legislative data group and enable element eligibility for each element.

2. Run the Create Time Card Calculation Component process to generate the calculation components that record the time card entries transferred to payroll from Time and Labor.

Time Attributes Setup

After the payroll elements are set up and the Create Time Card Calculation Component process has been run by the payroll administrator, run the following two processes on the time card data:

- Generate Data Dictionary Time Attributes: Creates data dictionary time attributes for a selected time consumer that categorizes time or defines time card fields.
- Generate Time Card Fields: Creates time card fields using data dictionary time attributes, for the specified legislative data group.

These tasks are available in the Define Time and Labor task list, in the Setup and Maintenance work area.

Time Entry Configuration

Payroll time entries on the time cards contain predefined payroll time card fields, such as pay time type and assignment number.

- Use the Manage Time Card Fields task in the Setup and Maintenance work area to create a new time card field, with a new label, enabling layout set overrides.
- Use the predefined payroll layout set if you do not need to make changes to the delivered time card fields or labels.
- For a custom layout, use the Manage Time Layout Sets task in the Setup and Maintenance work area to create a new payroll layout based on the predefined payroll layout. Customize the time card fields displayed on all time entry, review, and approval pages.

Time Period Considerations

Time periods for reporting and approving time can be weekly or biweekly. Approval periods match the reporting period. Therefore, time cards are submitted for approval as soon as they are submitted.

Your payroll periods can be weekly, biweekly, semimonthly, or monthly. If you want your payroll periods to align with time card periods, organize your workers into easily identifiable HCM Groups that you assign to the correct worker time processing profile containing a weekly or biweekly time card period.

Payroll Validation Configuration

The payroll time entries are always validated when the time reporter clicks the Next button to proceed to the Time Card Review page to submit the time card.
Clicking Next runs all application validations, as well as any time entry and calculation rules that apply, and generates calculated time.

Using the Manage Time Consumer Sets task, you can configure the validations to also run when the time reporter clicks the Save button.

Clicking the Submit button on the Time Card Review page updates the time card to Submitted status and triggers the approval flow for the time card.

**Payroll Transfer Process**

The payroll administrator uses the Load Time Card Batches process to retrieve time. Only approved time is transferred.

**Transfer Error Resolution**

Use the Time Management work area to monitor and troubleshoot transfer processes:

- View the time entries that failed during the transfer process in the Resolve Time Cards with Transfer Failures section of the Overview page.
- Monitor time transfer processes that failed or were terminated abruptly in the Incomplete Time Transfer Processes section of the Overview page.
- When the payroll administrator notifies of a failed process, reset the status to Unprocessed for the time entries that were not transferred successfully.
- The transfer process retrieves these unprocessed time entries the next time it runs.

**Using Time and Labor with Project Costing: Points to Consider**

To bill customers for time worked on a given project, you can use Oracle Fusion Time and Labor to validate reported time entries and transfer them to Oracle Fusion Project Costing.

Consider the following when using Time and Labor with Project Costing:

- Prerequisite department classification
- Prerequisite project data setup
- Project time entry configuration
- Time entry
- Validation configuration
- Time transfer process
- Transfer error resolution

**Prerequisite Department Classification**

To enable the employee to submit time cards, the department in the employee’s Employment record must be an expenditure organization. To classify a department as an expenditure organization, the projects administrator can:
1. Search for the Manage Project Organization Classifications task in the Setup and Maintenance work area and edit each department by selecting the **Classify as project expenditure organization** check box.

2. Search for the Submit Process to Denormalize Organization Hierarchy task and run the process.

**Prerequisite Project Data Setup**

Predefined time card fields for use on the time card are:

- Project Name
- Project Number
- Task Number
- Project Unit
- Expenditure Type
- Project Unit
- Organization
- Expenditure Type Class (System Linkage Function)
- Billable Indicator
- Work Type

Project tables in Oracle Fusion Project Foundations must be populated so that values are available for these time card fields. When Project Foundation tables contain values, those values can be displayed in the time card choice lists. The choice lists use value sets, which show the value and description.

**Project Time Entry Configuration**

Project time entries on the time cards contain predefined project time card fields, such as project, task, and expenditure type. Time entries also contain optional time card field values, such as billable indicator and work type.

- Use the Manage Time Card Fields task in the Setup and Maintenance work area to configure the time card fields by using different column labels and value sets.
- Use the predefined project layout if you do not need to make changes to the value set or labels for the project time card fields.
- For a new layout, use the Manage Time Layout Sets task in the Setup and Maintenance work area to duplicate and create a new project layout set based on the predefined project layout set. Use newly created time card fields displayed on all time entry, review, and approval pages.

**Time Entry**

This table describes how project values are derived in the time card:

<table>
<thead>
<tr>
<th>Data to Display</th>
<th>Derivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects that are correct for the person</td>
<td>Business unit defined in Human Resources for the person</td>
</tr>
<tr>
<td>Tasks that are correct for the person</td>
<td>Entry of the project name or number</td>
</tr>
</tbody>
</table>
Correct expenditure types | Entry of the project, which derives the project unit. The project unit derives the correct list of expenditure types

**Validation Configuration**

The project time entries are always validated when the time reporter clicks the Next button to proceed to the Time Card Review page to submit the time card. Clicking Next runs all application validations, as well as any time entry and calculation rules that apply, and generates calculated time.

Using the Manage Consumer Sets task, you can configure the validations to also run when the time reporter clicks the Save button. Clicking the Submit button on the Time Card Review page updates the time card to Submitted status and triggers the approval flow for the time card.

**Time Transfer Process**

The project administrator initiates the retrieval of the time using the Transfer Time Service, which is invoked from the Import and Process Cost Transaction process. Only approved time cards with no errors from validations, time entry, or time calculation rules are transferred.

**Transfer Error Resolution**

Use the Time Management work area to monitor and troubleshoot transfer processes:

- View the time entries that failed during the transfer process in the Resolve Time Cards with Transfer Failures section of the Overview page.
- Monitor time transfer processes that failed or were terminated abruptly in the Incomplete Time Transfer Processes section of the Overview page.
- When the Project Costing administrator notifies of a failed process, reset the status to Unprocessed for the time entries that were not transferred successfully.
- The transfer process retrieves these unprocessed time entries the next time it runs.

**Time Card Approvals: Explained**

The Manage Time and Labor business process includes delivered approval workflow tasks that route payroll-related time entries or project-related time entries to the appropriate approvers, such as line manager and project manager. You can customize these tasks to meet your business needs.

Important aspects of time card approval flow include:

- Approval periods
- Approval groups
- Approval tasks and rules
- Approval flow

**Approval Periods**

Use the Manage Repeating Time Periods task to define approval periods, for each time consumer. The approval period is the same as the time card period. When the approval period is met, the time card is ready to be routed for approval.

**Approval Groups**

Approval groups are defined lists of approvers used to define the approval routing within the approval rules of the approval task. Configure approval groups using the BPM worklist.

**Time Card Approval Tasks and Rules**

Use the BPM worklist application to view and modify the Time Card approval tasks and rules. Alternatively, search for the Define Approval Management for Human Capital Management task list and use the Manage Approval Rules and Notifications for Human Capital Management task to create and modify time card approval rules.

Approval tasks define event-driven configurations and approval rules define configurations that determine the routing.

The two predefined approval tasks include:

- **Time Card Approval Task**: Routes payroll time entries that contain payroll time types to the line manager if the total hours for a time card exceed 40 hours.
- **Project Time Card Approval task**: Routes time entries that contain a reported project, task, and expenditure type to the appropriate project manager.

The two predefined approval rules include:

- **Time Card Approval Task Rule**: Routes time entries to a worker’s line manager if the reported time is above 40 hours in a week. Time entries less than 40 hours are approved automatically.
- **Project Time Card Approval Task Rule**: Routes time entries in parallel to one or more project managers. If the project manager cannot be found or derived, then the approval rule routes the time entries to the worker’s line manager.

You can define different approval rules based on different rule conditions.

**Approval Flow**

A time card is considered approved when all approvers approve the time card. If any one of the approvers rejects a time card, it is considered rejected. The worker receives notification when the time card has been approved or rejected. You can define approval rules to override this normal approval flow. Use the Manage Worker Time Entry Profiles task to control when the worker can update the time card during the approval process.
Manage Repeating Time Periods

Repeating Time Periods: Explained

A repeating time period is a period definition that repeats itself, such as, a weekly period that starts on a Sunday. Define as many repeating periods as required. Repeating time periods do not overlap and are contiguous. Create repeating time periods that you can use as approval periods and time card entry periods. The same time period must be used for the time card entry period and time card approval period.

Time Card Entry Periods

Time Card entry periods determine how often workers must fill in their time card. When you configure a worker time processing profile, you associate a repeating time period as time card entry period. For example, if you want time cards to be filled in every week, then you must select a weekly repeating time period.

Approval Periods

An approval period controls when a time card is submitted for approval. When you configure a time consumer set, you associate a repeating time period as an approval period.

Absence Accrual Periods

An absence accrual period is a time interval in which workers accrue time within an accrual term. When you create an absence plan, use the repeating period to determine how often in an accrual term a worker accrues leave.

Repeating Time Period: How It Is Calculated

Define repeating time periods to determine the frequency of time card entry and approval. Saving the definition generates periods for ten years before and after the current date. These time periods are continually generated and are never used up.

Settings that Affect Repeating Period Calculation

Using the Manage Repeating Time Period task, you select values for the period type, period length, and pattern starting date. You can also specify dates within which to test your period definitions. This table describes the settings.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period Type</td>
<td>Weekly</td>
</tr>
<tr>
<td>Period Length</td>
<td>Select Biweekly or specify the number of weeks in a single period.</td>
</tr>
</tbody>
</table>
Sample Start Date

Enter an example starting date that sets the desired pattern for periods longer than one day.

Test Dates

Enter start and end dates with a valid range to test whether the generated instances of the time period are as expected. A preview of all period instances within the test start date and test end date is displayed.

### How the Period is Calculated

The following table illustrates how the pattern starting date works with the period type and duration to generate repeating periods within the test dates indicated:

<table>
<thead>
<tr>
<th>Period Type</th>
<th>Length of Period</th>
<th>Sample Start Date</th>
<th>Preview Period Dates</th>
<th>Period Generation Logic</th>
<th>Period Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>Biweekly</td>
<td>05/01/12</td>
<td>Start date: 01/01/12</td>
<td>Starting with the pattern starting date, periods are generated every 14 days. All periods start on the same day of the week.</td>
<td>10 January - 23 January 24 January - 6 February 7 February - 20 February 21 February - 5 March 6 March - 19 March 20 March - 2 April 3 April - 16 April 17 April - 30 April 1 May - 14 May 15 May - 28 May</td>
</tr>
<tr>
<td>Monthly</td>
<td>Calendar month</td>
<td>05/04/12</td>
<td>Start date: 01/01/12</td>
<td>Periods are generated from a specified day in one month up to the day in the following month.</td>
<td>4 January - 3 February 4 February - 3 March 4 March - 3 April 4 April - 3 May 4 May - 3 June 4 June - 3 July</td>
</tr>
</tbody>
</table>
Define Time and Labor

Semimonthly | NA | 05/04/12 | Start date: 05/01/12 End date: 07/31/12 | The first of the semimonthly periods starts on the numerical day of the pattern starting date and lasts for 15 days. The second period starts the day after the first period ends, and lasts through the day before the numerical day of the pattern starting date in the next month. | 4 May - 18 May 19 May - 3 June 4 June - 18 June 19 June - 3 July 4 July - 18 July

Note
The test start and end dates are not used to generate time periods. The first test period generated might or might not match the pattern starting date you entered, depending on how you define the period and which test dates you select.

FAQ for Manage Repeating Time Periods

Why can't I edit some repeating time periods?

You cannot edit predefined repeating time periods. For repeating time periods that you create, once you save the new period definition, you can edit only the repeating period name and the associated description.

Manage Time Card Fields

Time Card Fields: Explained

A Time Card Field is a collection of properties that specify how a time attribute is displayed in the time card. You can use time card fields to display different attribute values in the time card for different user groups. A time card field can contain either a single time attribute or multiple time attributes. You can display a time card field either in all time entry pages or only on the time entry dialog boxes when a time reporter selects a particular time attribute in another time card field. Further, you can designate default or derived values for time card field entries and configure default values for time card field properties.

When creating time card fields, you configure the following:

- Time attribute
- Time card field type
• Bind Variables
• Dependent time attribute
• Dependent time card field
• Global context and global value

**Time Attribute**

A time attribute is a predefined entity whose values describe various qualities of time. A time card field contains the time attribute and its associated values. For example, the Payroll Time Type attribute has Regular and Overtime as values.

**Time Card Field Type**

Based on the number of attributes, a time card field can be either a single-attribute time card field or multiple-attribute time card field.

A single-attribute time card field has only one time attribute associated with it. For example, Task is a single-attribute time card field that has only TaskID as the associated time attribute.

A multiple-attribute time card field contains one or more time attributes. It stores multiple values internally, but displays only one value to the time card user. You can create up to 20 multiple-attribute time card fields. For example, Payroll time and Expenditure type is a multiple-attribute time card field that contains two attributes: Payroll time type and Expenditure type. You can configure the field so that when the time card user selects the value Regular in the Hours type attribute, the application stores Payroll time type and Billable as the Expenditure type attribute.

Based on the dependency type, a time card field can be either a parent time card field or a dependent time card field.

A parent time card field always exists irrespective of whether values are selected on the time card or not. The list of values in an independent time card field could change based on another value selected on the time card, but the time attribute always exists. The existence of a dependent time card field is dependent on the selected independent time card field. If the independent time card field attribute is not selected, the dependent time card field would not exist.

**Bind Variables**

A bind variable enables you to pass a value to a time card field so that the list of values is restricted based on the time card period and previous time entries.

**Default Time Card Field Values**

You can configure default values for new time card field entries either by providing a value or by selecting a function that displays the value in the time card. Also, you can configure default values for those time card fields that are based on the value entered in another time card field by selecting a function. For example, when the time card user selects the value Billable in the Expenditure type attribute, ST is stored as the Expenditure classification attribute.

**Dependent Time Attribute**

You can define the dependent value list that must be displayed in the time card based on the value selected for the parent time attribute. For example, where Project is the parent attribute and Task is the dependent attribute, you can
restrict the list of tasks that appear on the time card on the basis of the project selected during time entry.

**Dependent Time Card Field**

You can define the dependent time card fields that might be displayed in the time card when a time attribute is selected in the parent time card field. Dependent time card fields are always single-attribute time card fields. However, the parent time card field can be either a single-attribute time card field or a multiple-attribute time card field.

Examples:

- When the user selects an attribute value in the Payroll Time Type single-attribute time card field, the Rate Override Code time card field must be displayed in the time card.

- When the user selects the value Personal time off in a Multiple-Attribute Time Card Field, the application stores Absence type as Vacation and Payroll time type as Null. Absence reason, which is the dependent time card field for Absence type, is also displayed in the time card.

**Global Context and Context Value**

You can display the dependent time card field attributes on the time entry page by declaring the dependent time card field as global. Alternatively, you could place restrictions that a dependent time card field is displayed only when certain values are selected in the parent time card field.

**Time Attributes, Time Card Fields, Layout Sets, Setup Profiles, and Groups: How They Work Together**

Create time card fields that specify how a time attribute must be displayed in the time card for different groups of time card reporters. A time card field may be used in multiple layout sets with or without variation in properties. A layout set is associated with a Worker Time Entry Profile, which in turn is assigned either to a person or group of persons.

The following figure shows the relationship between time attributes, time card fields, layout sets, setup profiles and groups.
Time Attributes
A Time attribute is an entity whose value describes the various qualities of time. When you create a time card field, you can specify time attributes and values associated with those time attributes. For example, the Expenditure Type time attribute has values Regular Billable and Nonbillable.

Time Card Fields
When defining a time card field, you can change the name of the column displayed for the time attribute, limit the display of values in a list, or derive the value of a field from the value in another field.

Layout and Layout Sets
A layout is a set of options that determine the fields to be displayed in the time card and details of how these fields must be laid out. A layout set comprises different time card layouts for entering, reviewing, and approving time cards. You can associate a time card field with multiple layout sets. For example, you can configure a time card field that contains five different values for workers, and seven values for managers.

Worker Time Entry and Worker Time Processing Profiles
A worker time entry profile displays the time card based on layout and time entry access rules that you select.
A worker time processing profile is a collection of time card rules, such as the
time entry rules. It includes the time period to be used in time cards and the time
consumers who use time data for processing.

A setup profile can be either a Worker Time Entry Profile or Worker Time
Processing Profile. A layout set can be assigned to multiple worker time entry
profiles.

**Groups**

A group is a collection of persons that share common time reporting
characteristics. Each group can have only one setup profile at any point in time.

**Creating a Single-Attribute Time Card Field: Worked Example**

A company wants to create a single-attribute time card field that displays
absence type information on the time card. Further, the company wants to
display absence reason information on the time card whenever the time card
user selects an absence type.

The following table summarizes the key decisions for Absence Type and
Absence Reason attributes.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the name of the parent time card field?</td>
<td>Absence Management Time Card Field</td>
</tr>
<tr>
<td>What is the time attribute?</td>
<td>Absence Management Type</td>
</tr>
<tr>
<td>What is the user data source for this attribute?</td>
<td>List of Absence Types for User</td>
</tr>
<tr>
<td>What is the administrator data source for this attribute?</td>
<td>List of Absence Types for Administrator</td>
</tr>
<tr>
<td>What is the basis for deriving the default value for this time card field?</td>
<td>Specific value</td>
</tr>
<tr>
<td>What is the default value for this time card field?</td>
<td>Illness</td>
</tr>
<tr>
<td>What is the display component for this time card field?</td>
<td>Smart choice list</td>
</tr>
<tr>
<td>What is the label for this time card field?</td>
<td>Absence Management Type</td>
</tr>
<tr>
<td>Would you want to update these property values when configuring the layout set?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the time card field required on the time card?</td>
<td>No</td>
</tr>
<tr>
<td>What is the name of the dependent time card field?</td>
<td>Absence Type Reason Time Card Field</td>
</tr>
<tr>
<td>What is the time attribute for the dependent time card field?</td>
<td>Absence Type Reason</td>
</tr>
</tbody>
</table>

**Summary of the Tasks**

Create a new time card field and configure its time attribute properties. Also,
configure time attributes of the dependent time card field.

- Configure time attribute properties of the parent time card field.
- Create dependent time card field.
Configuring Time Attribute Properties

1. In the Setup and Maintenance work area, search for the Manage Time Card Fields task and click Go to Task to access the Manage Time Card Fields page.

2. Click Create.

3. On the Create Time Card Field page, select **Single attribute time card field**.

4. Click OK.

5. In the General Properties region, complete the fields, as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Absence Management Time Card Field</td>
</tr>
<tr>
<td>Description</td>
<td>Contains absence information</td>
</tr>
</tbody>
</table>

6. In the Time Attribute and Data Source region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Attribute</td>
<td>Absence Management Type</td>
</tr>
<tr>
<td>User Data Source</td>
<td>List of Absence Types for User</td>
</tr>
<tr>
<td>Administrator Data Source</td>
<td>List of Absence Types for Administrator</td>
</tr>
</tbody>
</table>

7. Click **Add Attribute Dependency** to add time attributes that must be available when this time attribute is selected.

8. In the Add Dependent Time Attributes dialog box, select **Personid** from the **Bind Variable Name** option.

9. In the Add Dependent Time Attributes dialog box, select **Resource** in the **Time Attribute** list box.

10. Click **OK**.

11. In the Default Values section, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populate New Entry Automatically</td>
<td>Specific value</td>
</tr>
<tr>
<td>Time Attribute Display Value</td>
<td>Illness</td>
</tr>
</tbody>
</table>

12. In the Display Properties region, complete the fields, as shown in the table:

---

**Note**

The data sources, List of Absence Types for User and List of Absence Types for Administrators, are predefined.
13. Click Next.

Creating Dependent Time Card Fields

1. On the Dependent Time Card Field page, click Create.
2. On the Create Dependent Time Card Field page, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Absence Type Reason Time Card Field</td>
</tr>
<tr>
<td>Dependent Time Attribute</td>
<td>Absence Type Reason</td>
</tr>
</tbody>
</table>

3. Select the Global Context check box.
4. Click OK.
5. In the Time Attribute and Data Source region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Attribute</td>
<td>Absence Management Type</td>
</tr>
<tr>
<td>User Data Source</td>
<td>List of Absence Reasons</td>
</tr>
<tr>
<td>Administrator Data Source</td>
<td>List of Absence Reasons</td>
</tr>
</tbody>
</table>

6. In the Display Properties region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component Type</td>
<td>Smart choice list</td>
</tr>
<tr>
<td>Column Label</td>
<td>Absence Reason</td>
</tr>
<tr>
<td>Allow Layout Set Override</td>
<td>Yes</td>
</tr>
<tr>
<td>Required on the Time Card</td>
<td>No</td>
</tr>
</tbody>
</table>

7. Click Next.
8. Review the time card information.
9. Click Save and Close.
Creating a Multiple-Attribute Time Card Field: Worked Example

A company wants to create a multiple-attribute time card field that contains information on absence type and payroll time type. Further, the company wants to display absence reason information in the time card whenever the time card user selects an absence type value. This table summarizes the key decisions for configuring default values for various time card field properties.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the display component for the time card field?</td>
<td>Choice List</td>
</tr>
<tr>
<td>What is the label for time card field?</td>
<td>Type of Absence and Payroll Entry</td>
</tr>
<tr>
<td>Would you want to update these property values when configuring the layout set?</td>
<td>No</td>
</tr>
<tr>
<td>Is the time card field required on the time card?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following table summarizes the key decisions for the parent time card field with Absence type and Payroll time type attributes.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>Absence Type Attribute</th>
<th>Payroll Time Type Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the time attribute?</td>
<td>Absence Management Type</td>
<td>Payroll Time Type</td>
</tr>
<tr>
<td>What is the user data source for this attribute?</td>
<td>List of Absence Type for User</td>
<td>List of Absence Type for user</td>
</tr>
<tr>
<td>What is the administrator data source for this attribute?</td>
<td>List of Absence Type for Administrator</td>
<td>List of Absence Type for Administrator</td>
</tr>
<tr>
<td>What is the basis for deriving the default value for a new time card field?</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>What is the default value for a new time card field?</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Summary of the tasks

1. Create a multiple-attribute time card field with two attributes.
2. Create a single-attribute time card field that is dependent on this multiple-attribute time card field.

Creating a Multiple-Attribute Time Card Field

1. In the Setup and Maintenance work area, search for the Manage Time Card Fields task and click Go to Task to access the Manage Time Card Fields page.
2. Click Create.
3. Select Multiple attribute time card field.
4. In the General Properties section, complete the fields as shown in the table.
5. In the **Display Value and Multiple Attribute Definition** region, select **Add Time Attribute** from the Actions menu.

6. In the **Add Time Attribute** dialog box, complete the fields as shown in this table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Absence Type Attribute</th>
<th>Payroll Time Type Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Display Sequence</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Time Attribute</td>
<td>Absence Management Type</td>
<td>Payroll Time Type</td>
</tr>
<tr>
<td>Administrative Data Source</td>
<td>List of Absence Types for Administrator</td>
<td>List of Payroll Time Types for Administrator</td>
</tr>
<tr>
<td>User Data Source</td>
<td>List of Absence Types for User</td>
<td>List of Payroll Time Types for User</td>
</tr>
<tr>
<td>Dependent on Time Attribute</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Time Attribute Required</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

7. In the Display Value and Multiple Attribute Definition region, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Value Displayed on Time Card</th>
<th>Payroll Time Type</th>
<th>Absence Type Attribute</th>
<th>From</th>
<th>To</th>
<th>Enabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity</td>
<td>NA</td>
<td>Paid Maternity</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Dependent care</td>
<td>NA</td>
<td>Dependent Care</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Vacation</td>
<td>NA</td>
<td>Vacation</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Regular Hours</td>
<td>Regular</td>
<td>NA</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Overtime Hours</td>
<td>Overtime</td>
<td>NA</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
<tr>
<td>Vacation</td>
<td>Vacation</td>
<td>NA</td>
<td>1-Jan-2013</td>
<td>1-June-2013</td>
<td>Yes</td>
</tr>
</tbody>
</table>
8. In the Display Properties region, complete the fields as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component Type</td>
<td>Smart choice list</td>
</tr>
<tr>
<td>Column Label</td>
<td>Absence Payroll Time Card Field</td>
</tr>
<tr>
<td>Enable Layout Set Override</td>
<td>No</td>
</tr>
<tr>
<td>Required on the Time card</td>
<td>Yes</td>
</tr>
</tbody>
</table>

9. Click **Next**.

**Creating a Dependent Time Card Field**

1. On the Dependent Time Card Field page, click **Create**.

2. On the Create Dependent Time Card Field page, complete the fields as shown in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Absence Reason Time Card Field</td>
</tr>
<tr>
<td>Dependent Time Attribute</td>
<td>Absence Reason</td>
</tr>
</tbody>
</table>

3. Select the **Global Context** check box.

4. Click **OK**.

5. In the Time Attribute and Data Source region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Attribute</td>
<td>Absence Type Reason</td>
</tr>
<tr>
<td>User Data Source</td>
<td>List of Absence Reasons</td>
</tr>
<tr>
<td>Administrator Data Source</td>
<td>List of Absence Reasons</td>
</tr>
</tbody>
</table>

6. In the Default Values region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populate New Entry Automatically</td>
<td>Specific value</td>
</tr>
<tr>
<td>Time Attribute Display Value</td>
<td>BM_AR_CASUAL_LEAVE</td>
</tr>
</tbody>
</table>

7. In the Display Properties region, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component Type</td>
<td>Smart choice list</td>
</tr>
<tr>
<td>Column Label</td>
<td>Absence Type Reason</td>
</tr>
<tr>
<td>Allow Layout Set Override</td>
<td>No</td>
</tr>
</tbody>
</table>
8. Click Next.
9. Review the time card field information.
10. Click Save and Close.

Manage Time Layout Sets

Layout Sets: Explained

A layout set is a collection of layouts that determine the appearance of the time entry, review, and approval pages of the time card. Layouts contain the time card fields to be displayed in these pages and the configurations that control how the various time entry options must be laid out. Assign a layout set to a worker time entry profile that is assigned either to a person or a group of persons. A layout set can be assigned to multiple profiles.

This topic describes the various aspects of layout sets and the options that you can configure when you create a layout set:

- Layouts
- Layout types
- Time card matrix
- Row level details
- Comments
- Entry level details

Layouts

Each layout set applies to a selected time consumer or combination of time consumers. When you create a layout set, the application saves a set of predefined layouts for the selected time consumer. You can customize all layouts in the newly created layout set by overriding those default time card field properties for which an override is permitted. However, you cannot delete layouts from a layout set.

Layout Types

Configure layouts to customize the different time card pages.

<table>
<thead>
<tr>
<th>Layout Type</th>
<th>Time Card Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Entry Layout</td>
<td>Create Time Card</td>
</tr>
<tr>
<td>Time Review Layout</td>
<td>Review Time</td>
</tr>
</tbody>
</table>
Time Card Matrix

In the time entry pages, the time card matrix is the table that displays time attributes, days, and dates that contain hours or time entries.

Row Level Details

The time card fields that you add in the Row Level Details page are displayed in a dialog box with the default column label Additional Attributes. Click the icon on each time entry row to open the dialog box that displays the dependent fields of entered time.

For example, you can configure a payroll layout to display the Input Value time card field in the Additional Attributes dialog box, whenever the Regular time card field is selected in the time card.

Comments

If you choose to display the comments column on the time card, then, in the Comments dialog box, you can set the date entry format for the date field displayed on these pages.

Entry Level Details

The time card fields that you add in the Entry Level Details page are displayed on the Daily Details dialog box of the time card. If you chose not to display the comments column on the time card, then you can display comments in the Entry Level Details dialog box and set the date entry format for the date field displayed on the Daily Details dialog box.

Configuring the Various Time Entry Layouts: Worked Example

This example demonstrates how to create a layout set for the payroll time consumer and configure the following layouts in that layout set:

- Time Entry Layout
- Time Review Layout
- Time View Layout
- Time Approval Notification Layout

The following table summarizes the key decisions common to all layouts:

<table>
<thead>
<tr>
<th>Time View Layout</th>
<th>View Time Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Approval Notification Layout</td>
<td>Approve Time Card</td>
</tr>
<tr>
<td>Simplified Calendar Entry Layout</td>
<td>Report Time: The simplified page for reporting time.</td>
</tr>
<tr>
<td>Simplified Time View Layout</td>
<td>View Time Card: The simplified page for viewing the time card.</td>
</tr>
</tbody>
</table>

| Time Card Matrix

In the time entry pages, the time card matrix is the table that displays time attributes, days, and dates that contain hours or time entries.

Row Level Details

The time card fields that you add in the Row Level Details page are displayed in a dialog box with the default column label Additional Attributes. Click the icon on each time entry row to open the dialog box that displays the dependent fields of entered time.

For example, you can configure a payroll layout to display the Input Value time card field in the Additional Attributes dialog box, whenever the Regular time card field is selected in the time card.

Comments

If you choose to display the comments column on the time card, then, in the Comments dialog box, you can set the date entry format for the date field displayed on these pages.

Entry Level Details

The time card fields that you add in the Entry Level Details page are displayed on the Daily Details dialog box of the time card. If you chose not to display the comments column on the time card, then you can display comments in the Entry Level Details dialog box and set the date entry format for the date field displayed on the Daily Details dialog box.
### Decisions to Consider

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>Time Entry, Time Review, Time View, and Time Approval Notification Layouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is the time consumer?</td>
<td>Payroll</td>
</tr>
<tr>
<td>What are the time card fields to display on the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>Job, Hours Type</td>
</tr>
<tr>
<td>What is the label that replaces the time card field name on the time matrix section of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>For Job Time Card Field: Job ID</td>
</tr>
<tr>
<td>What are the time card fields to display on the Additional Attributes dialog box of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>Absence Rate, Rate, Rate Code</td>
</tr>
<tr>
<td>What is the label that replaces the time card field name on the Additional Attributes dialog box of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>For Absence Rate Time Card Field: Rate of Absence</td>
</tr>
<tr>
<td>What is the label that replaces the Additional Attributes label on both the Additional Attributes dialog and on the Additional Attributes column of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>Additional Payroll Attributes</td>
</tr>
<tr>
<td>Display row level comments on the time card or on the Daily Details page?</td>
<td>Daily Details page</td>
</tr>
<tr>
<td>What is the label that replaces the Comments label on the Comments dialog box?</td>
<td>Daily Comments</td>
</tr>
<tr>
<td>What is the time card field that you want to display on the Daily Details dialog box of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>Rate Multiplier</td>
</tr>
<tr>
<td>What is the label that replaces the Daily Details label on both the Daily Details dialog box and Daily Details column of the Create Time Card, Review Time, View Time Card, and Approve Time Card pages?</td>
<td>Payroll Daily Details</td>
</tr>
</tbody>
</table>

The following table summarizes the key decisions that are different:

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>Time Entry Layout</th>
<th>Time Review Layout</th>
<th>Time View Layout</th>
<th>Time Approval Notification Layout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow the time card user to enter negative hours when reporting time?</td>
<td>No</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>What is the format for reporting and displaying time?</td>
<td>Display start and end time</td>
<td>Display start and end time</td>
<td>Display start and end time</td>
<td>NA</td>
</tr>
<tr>
<td>Enter or display hours to how many decimal place?</td>
<td>2</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
How many rows for entering time must be displayed on the time reporting pages?

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Payroll Layout Set</td>
</tr>
<tr>
<td>Description</td>
<td>Payroll layout set that includes the displayed assignment number and payroll time card fields.</td>
</tr>
</tbody>
</table>

What is the format for displaying date on the time matrix section of the Create Time Card, Review Time, and View Time Card pages?

What is the format for displaying date in the Comments section of the Create Time Card, Review Time, and View Time Card pages?

Prerequisite

1. Create time card fields Job and Hours Type.

Summary of the Tasks

1. Create a layout set for the Payroll Time Consumer Set.
2. Configure the time entry layout to customize the Create Time Card page.
3. Configure the time review layout to customize the Review Time page.
4. Configure the time view layout to customize the View Time page.
5. Configure the approval notification layout to customize the Approve Time page.

Creating a Layout Set

1. In the Setup and Maintenance work area, search for Manage Layout Sets and click Go to Task to access the Manage Layout Sets page.
2. Click Create.
3. On the Generate Layout Sets page, select Payroll as the Time Consumer Set.
4. Click Update Layout Set.
5. On the Define Layout Sets page, complete the fields, as shown in the table.
6. Click Save.

**Configuring the Time Entry Layout**

1. On the Define Layout Set page, select **Time Entry Layout** and click Go to Task to access the Configure Time Entry Layout page.

2. Click **Edit Layout** to edit the display of time entry fields on the time card.

3. On the Time Card Matrix page, edit the display labels of the Job and Hours Type time card fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value for the first Time Card Field</th>
<th>Value for the second Time Card Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Card Field</td>
<td>Job</td>
<td>Hours Type</td>
</tr>
<tr>
<td>Display Label</td>
<td>Job ID</td>
<td>Type of Hours</td>
</tr>
</tbody>
</table>

4. In the Time Entry Properties section, complete the values, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Entry Format</td>
<td>Display start and end time</td>
</tr>
<tr>
<td>Decimal Precision</td>
<td>2</td>
</tr>
<tr>
<td>Default Number of Blank Rows</td>
<td>5</td>
</tr>
<tr>
<td>Date Format</td>
<td>January 4, Monday</td>
</tr>
</tbody>
</table>

5. In the Time Card Matrix dialog box, click Next.

6. In the Row Level Details dialog box, click Add two times to add two time card fields.

7. Complete the fields for the two time card fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value for the first Time Card Field</th>
<th>Value for the second Time Card Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Card Field</td>
<td>Absence Reason</td>
<td>Absence Type</td>
</tr>
<tr>
<td>Display Label</td>
<td>Reason of Absence</td>
<td>NA</td>
</tr>
</tbody>
</table>

8. In the Display Properties section, enter **Additional Payroll Attributes** in the Label on the Time Card field.

9. Click Next.

10. On the Comments page, select In the entry level detail page in the Comments Column Display field.

11. In the Display Properties section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label on the Time Card</td>
<td>Daily Comments</td>
</tr>
</tbody>
</table>
12. Click Next.

13. On the Entry Level Details page, click Add to add a time card field. Select Rate Multiplier in the Time Card Field section.


15. Click Save and Close.

**Configuring the Time Review, Time View, and Approval Notification Layouts**

1. On the Define Layout Sets page, select the required layout and click Go to Task.

2. Repeat steps 2 through 5 of the task: Configuring the Time Entry Layout.

3. Repeat steps 7 through 16 of the task: Configuring the Time Entry Layout.

**Configuring a Simplified Calendar Entry Layout: Worked Example**

This example demonstrates how to configure a simplified calendar entry layout. The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the time card fields to be displayed on the Report Time page?</td>
<td>Projects, Task</td>
</tr>
<tr>
<td>What are the labels that replace the time card field name in the Report Time page?</td>
<td>Projects Number, Task Number</td>
</tr>
<tr>
<td>Can the time card user enter negative hours on the Report Time page?</td>
<td>No</td>
</tr>
<tr>
<td>What is the format for reporting time?</td>
<td>Display start and end time</td>
</tr>
<tr>
<td>Enter or display hours to how many decimal place?</td>
<td>2</td>
</tr>
<tr>
<td>What are the time card fields to be displayed in the Drag to Report Time section of the Time page?</td>
<td>Expenditure Type, Project Unit, Expenditure Type Class</td>
</tr>
</tbody>
</table>

**Summary of the Tasks**

1. Create a layout set with Projects as the Time Consumer Set.

2. Configure the simplified calendar entry layout to customize the simplified report time page.

**Creating a Layout Set**

1. In the Setup and Maintenance work area, search for Manage Layout Sets and click Go to Task to access the Manage Layout Sets page.

2. Click Create.

3. On the Generate Layout Sets page, select Project Costing as the Time Consumer Set.
4. On the Define Layout Sets page, complete the fields as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Projects Layout Set</td>
</tr>
<tr>
<td>Description</td>
<td>Using this layout, workers can enter time against a selected project, task, and expenditure type.</td>
</tr>
</tbody>
</table>

5. Click Save.

Creating a Simplified Calendar Entry Layout

1. On the Define Layout Set page, select Simplified Calendar Entry Layout and click Go to Task to access the Configure Simplified Calendar Entry Layout page.

2. Click the Edit Layout button to edit the display of time card fields on the Report Time page.

3. On the Time Card Matrix page, complete the fields as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow negative hours</td>
<td>No</td>
</tr>
<tr>
<td>Time Entry Format</td>
<td>Display start and end time</td>
</tr>
<tr>
<td>Decimal Precision</td>
<td>2</td>
</tr>
</tbody>
</table>

4. Click Next.

5. On the Drag and Drop Values page, click Add three times to add three time card fields - Expenditure Type, Project Unit, and Expenditure Type Class.

6. Enter Type of Expenditure as the Display Label for the Expenditure Type time card field.

7. Click Save.

FAQ for Manage Time Layout Sets

Why can't I edit some layout sets?

You cannot edit predefined layout sets, such as Projects Layout Set and Payroll Layout Set. However, you can duplicate these layouts to make the required modifications.
Manage Time Categories

Time Categories: How They Work with Time Consumer Sets and Time Entry Rules

A time category classifies time entries into types, such as sick time, vacation time, or regular time. Create time categories and use them in time consumer sets and time entry rules.

Time Categories

Define a time category by specifying the time attribute fields and allowed values for each of the fields that are required for the time entry to belong to the time category. Specify how several attributes are combined into an expression that must be true as a whole for the time entry to match the time category.

Time Consumer Set

A time consumer set defines configurations of one or more time consumers. When you configure a time consumer set, you associate a time category that determines the time attributes that must be transferred to the time consumer. For example, the payroll consumer might not require time entries reported against projects, and might associate a time category that contains only payroll-related attributes.

Time Entry Rules

Time entry rules validate the time card data. When you configure a time entry rule, select a time category as the condition that must be met for that time entry rule to apply.

Using Time Category Condition Components: Explained

To define a time category, specify the conditions that must be satisfied for the time to meet the definition of the time category. For example, you can create a time category Billable Time with the following condition: Any time entry that contains the attribute Overtime OR the attribute Overtime Project.

Time categories can contain other time categories. For example, you can define time categories for Sickness and Vacation, and then define a third category called Absence that contains these two categories.

This topic describes:

- Condition components
- Compound and grouped conditions
**Condition Components**

A condition consists of the following components:

- **Time Attribute**: Time attributes collect information that indicate the type or category of task being performed, such as Payroll Time Type, Task, and Expenditure Type.

- **Value Type**: A value type represents a classification of the time category value. This table lists the different value types that you can use to define time categories.

<table>
<thead>
<tr>
<th>Value Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any value</td>
<td>Any value reported for the time attribute is included in this time category</td>
</tr>
<tr>
<td>Null value</td>
<td>If there is no value reported for the time attribute, then that time entry is included in that time category.</td>
</tr>
<tr>
<td>Specific value</td>
<td>A value for the time attribute that must be selected from the list of values for that time attribute.</td>
</tr>
<tr>
<td>Value set</td>
<td>A value set must be selected from a list of value sets.</td>
</tr>
</tbody>
</table>

- **Operator**: An operator, such as AND or OR, combines two conditions to return a set of filtered results. An AND operator returns results if both conditions are met and an OR operator returns results if either condition is met.

**Compound and Grouped Conditions**

Connect two or more conditions by logical operators, such as AND or OR, to create a compound condition that returns true or false. Additionally, group two or more conditions within parentheses to form a separate statement within a compound condition. A grouped condition can be grouped within another grouped condition. For example, define a time category to include the following grouped conditions: (Payroll Time Type = Regular) AND (Expenditure Type = Overtime OR Expenditure = Billable). The time category rule is satisfied when an entry on the time card satisfies the first condition and one of the two grouped conditions.

The figure shows a compound condition containing three conditions, two of which are grouped.
Creating Time Categories: Worked Example

A company wants to create a time category that summarizes compensation-only hours. This example demonstrates how to create two categories, Project Category and Expenditure Category and embed them into a summary category definition, Project Development Cost Category.

The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>Project Category</th>
<th>Expenditure Category</th>
<th>Project Development Cost Category (Summary Category)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the time attribute?</td>
<td>Project ID</td>
<td>Task ID</td>
<td>Project Development Cost</td>
</tr>
<tr>
<td>What is the type of attribute value?</td>
<td>Specific value</td>
<td>Specific value</td>
<td>NA</td>
</tr>
<tr>
<td>What are the time attribute values?</td>
<td>Design and Development</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>What are the operators?</td>
<td>AND</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Embed categories?</td>
<td>No</td>
<td>No</td>
<td>Project Category and Expenditure Category</td>
</tr>
</tbody>
</table>

Summary of the tasks
Create three new categories. Embed the first two categories into the third.
1. Create two time categories using time attributes.
2. Create a summary category by embedding the two time categories.

Creating Time Categories Using Time Attributes
Perform the following steps twice, completing one category before beginning again to create the next.
1. In the Setup and Maintenance work area, search for the Manage Time Categories task and click Go to Task to access the Manage Time Categories page.
2. Click Create.
3. On the Create Time Categories page, complete the fields as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Category 1</th>
<th>Category 2</th>
<th>Summary Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Name</td>
<td>Project ID Category</td>
<td>Expenditure Type Category</td>
<td>Project Development Cost Category</td>
</tr>
<tr>
<td>Description</td>
<td>Summarizes Project ID attributes.</td>
<td>Summarizes expenditure type attributes.</td>
<td>Summarizes project development cost attributes.</td>
</tr>
</tbody>
</table>
4. In the first time category condition row, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Category 1</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Attribute</td>
<td>Project ID</td>
<td>Expenditure Type</td>
</tr>
<tr>
<td>Value type</td>
<td>Specific value</td>
<td>Specific value</td>
</tr>
<tr>
<td>Attribute Value</td>
<td>Design</td>
<td>Straight Time</td>
</tr>
<tr>
<td>Operator</td>
<td>AND</td>
<td>AND</td>
</tr>
</tbody>
</table>

5. In the second time category condition row, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Category 1</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Attribute</td>
<td>Project ID</td>
<td>Expenditure Type</td>
</tr>
<tr>
<td>Value Type</td>
<td>Specific value</td>
<td>Specific value</td>
</tr>
<tr>
<td>Attribute value</td>
<td>Development</td>
<td>Overtime</td>
</tr>
</tbody>
</table>

6. Select the newly created rows and click Add Parentheses.
7. Click Save and Close.

**Adding Categories to the Project Development Cost Category**

1. On the Create Time Category page of the Project Development Cost time category, click Embed a Time Category.
2. Select Project Category in the Name field.
3. Click OK.
4. On the Create Time Category page, click Embed a Time Category.
5. Select Expenditure category in the Name field.
6. Click OK.
7. Click Save and Close.

**FAQs for Manage Time Categories**

**Can I ungroup only one condition in a group?**

If you select any one of the time category conditions in that group and click Remove Parentheses, then all time category conditions are ungrouped.

**How can I embed an existing time category into a new one?**

When creating a time category, use the Embed Time Category option to bring in the definition of an existing time category. After the existing time category is embedded into the new time category definition, it is displayed in read-only format, along with its attribute fields and values.
Manage Time Consumer Sets

Time Consumer Sets: Explained

A time consumer set defines configurations of one or more time consumers, such as Oracle Fusion Project Costing and Oracle Fusion Global Payroll. Configurations include assigning approval periods that specify when submitted time cards are routed for approval and specifying other transfer status and processing requirements.

Time consumer sets are assigned to a group of workers through the worker time processing profile. A time consumer set can be assigned to more than one profile. However, a setup profile can contain only one time consumer set.

The figure shows the relationship between time consumer sets, time processing profiles, and groups.

Creating Time Consumer Sets: Points to Consider

Use the Manage Time Consumer Set task in the Setup and Maintenance work area to create a time consumer set with multiple time consumers that can have different approval periods and validation requirements.

When defining time consumer sets, you must decide:
- The time consumers
- The time attributes to send to time consumers
- If the time card is required by time consumers
- Whether validations must be executed on the time card
- The approval period
- If the time card must be approved by other time consumers before being transferred to payroll

Time Consumers

You can select more than one time consumer in one time consumer set.
Time Attributes

Select the time category, which contains time attributes to be sent to time consumers. For example, a payroll time consumer might not want time entries reported against project values, so you would select a time category that excludes project-related attributes. In this case, only payroll time types would be included.

Required Time Card Status

In the Required Time Card Status field, select Yes, if the time card is always required by the time consumer for all time periods.

Validate on Time Card Actions

In the Validate on Time Card Actions field, select Submit Only if you want time entries to be validated when workers submit their time card. Alternatively, select Submit and Save if you want the time entries to be validated when workers click Save, Save and Close, and Next buttons.

Approval Period

You can select a repeating time period as an approval period. For example, if you want approvers to approve the time card once every week, then you must select a repeating period that is defined as Weekly.

Approval Required

You can select whether the time card must be approved by all time consumers in this time consumer set before being transferred to the required time consumer. For example, the payroll time consumer might want to receive only those time cards that are approved by both projects and payroll time approvers.

FAQs for Manage Time Consumer Sets

Why can't I edit some time consumer sets?

You cannot edit those time consumer sets that have been associated with a worker time processing profile. Additionally, once you save a new time consumer set, you cannot include new time consumers in the set or exclude existing time consumers from the set.

Manage HCM Groups

HCM Group Membership: Explained

A group is a collection of people with similar characteristics. A group might have a fixed number of people or the members might be updated on a defined
basis. Assign worker web entry and worker time processing profiles to groups. A worker can belong to more than one group.

Use the Manage HCM Groups task in the Setup and Maintenance work area to define groups.

This topic describes:
- Defining membership conditions
- Including or excluding individuals or other groups
- Setting embedded group priority
- Evaluating and refreshing membership
- Viewing group membership
- Locking membership

**Defining Membership Conditions**

Use personal and employment criteria to define conditions that must be satisfied for persons to be included in or excluded from a group. Some examples of personal criteria are Person Type, Date of Birth, and Full Name. Employment criteria include Assignment Status, Department Name, and Job Name.

For example, to create a group called Associate Marketing Reps, which consists of hourly workers that belong to the Marketing department, define these conditions:

**Condition 1**
- Evaluation Criteria: Department Name
- Operator: Equal to
- Value: Marketing
- Logical Operator: AND

**Condition 2**
- Evaluation Criteria: Job Name
- Operator: Equal to
- Value: Associate Marketing Rep

**Including or Excluding Individuals or Other Groups**

You can determine the group membership by adding individual workers and other groups with either Include or Exclude membership statuses. For example, to create a larger group that includes the hourly workers in the Marketing department, add the Hourly Marketing group with membership status equal to Include.

**Setting Embedded Group Priority**

When a group is embedded into another group, a worker can exist in more than one group. In such a case, the priority number assigned to the group determines the group membership. The lowest number has the highest priority.

For example, Joe Smith is a member of the two groups: Marketing and Advertising with the following membership statuses:

<table>
<thead>
<tr>
<th>Priority</th>
<th>Group Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Advertising</td>
<td>Include</td>
</tr>
</tbody>
</table>

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Joe Smith would be included in the Advertising group.

**Evaluating and Refreshing Membership**

After defining the group, click the **Refresh Group Membership** button on the Manage HCM Groups page to evaluate group membership and update the list of members. You can schedule regular refreshes using advanced options.

**Viewing Group Membership**

Specify a date within a range of dates to view the group membership as of that date.

**Locking Membership**

Select **Yes** in the **Locked** option to prevent refreshing of the group definition as of a specific date. For example, you can lock all members of a group, senior managers, as of 12-June-2013 so that the same set of workers would always be processed.

Locking the group membership is a permanent action and cannot be reversed.

**Group Membership: How It Is Evaluated**

An HCM group definition can include or exclude a person in multiple ways. The application evaluates the group definition in a specific order to determine the final membership status of each person as of a particular date.

**Settings That Affect Group Membership**

The following conditions affect the group membership:

- Individual inclusion or exclusion status of the person
- Inclusion or exclusion status of a defined group of persons that is embedded in the group definition
- Priority number of each embedded group
- Eligibility for selection criteria

**How the Group Membership Is Evaluated**

The application evaluates the membership of a group in the following order:

1. When you individually include or exclude a worker, then the associated include or exclude membership status determines the final membership status of the worker.
2. When you include or exclude a group, then the include or exclude membership status of the group determines the membership of all workers in that group.
3. When a worker is associated with more than one group with different inclusion or exclusion membership statuses, the priority number assigned
to the group determines the membership. The status that is associated with the group having the lowest number takes priority.

4. When you add evaluation criteria using attributes, relational, and logical operators, the filtered results returned by the different conditions determine the group membership.

The following figure illustrates that individual membership status has the highest priority in determining group membership. Embedded group status has a higher priority than eligibility criteria.

Defining Groups: Worked Example

A company wants to create a group for workers who are trained to complete the end of year financial accounts. No other borrowed workers are eligible for training and to work on year end tasks. This example demonstrates how to create three groups: Accounting Workers, Borrowed Workers, and Year End Processing Group, and embed the first two groups into the third.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>Accounting Workers</th>
<th>Borrowed Workers</th>
<th>Year End Processing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>How is the group definition evaluated?</td>
<td>For a date range</td>
<td>As of run date</td>
<td>For a date range</td>
</tr>
<tr>
<td>What is the condition that is used to build the selection criteria for the group?</td>
<td>Department Name Equal to Accounting</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>What is the group that you want to include in this group definition?</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Accounting Workers and Borrowed Workers</td>
</tr>
<tr>
<td>What are the members that you want to include or exclude from this group definition?</td>
<td>Not applicable</td>
<td>Members to Include: Tate Scott, Veronica Adriano, Fen Lee, Marsha Able, and Priya Krishnan</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Should the group membership be refreshed?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Summary of the Tasks**

Create three groups and embed the first two groups into the third.

1. Create two groups, one by adding selection condition and the other by including members explicitly.
2. Create the third group by including the first two groups.

**Defining a Group by Creating Group Criteria**

1. In the Setup and Maintenance work area, search for Manage HCM Groups and click Go to Task to access the Manage Groups page.
2. Click Create.
3. On the Create Group page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Accounting Workers</td>
</tr>
<tr>
<td>Description</td>
<td>Only workers who work for the accounting department.</td>
</tr>
<tr>
<td>Locked</td>
<td>No</td>
</tr>
<tr>
<td>Evaluation Period</td>
<td>For a date range. Number of Days Before Evaluation Date: 30 and Number of Days</td>
</tr>
</tbody>
</table>

4. In the Evaluation Criteria region, click Create.
5. In the Evaluation Criteria dialog box, select the fields for the criteria, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>Department Name</td>
</tr>
<tr>
<td>Operator</td>
<td>Equal to</td>
</tr>
<tr>
<td>Value</td>
<td>Accounting</td>
</tr>
</tbody>
</table>

6. In the Evaluation Criteria dialog box, click Save and Close.
7. On the Create Group page, click **Save and Close**.
8. On the Manage Groups page, click **Refresh Group Membership**.
9. On the Refresh Group Membership page, select **Accounting Worker** in the **Group** name choice list.
10. Select the **Evaluation Date** as the current date.
11. Select **No** in **Remove Future-Dated Group Members** choice list.
12. Select **Submit**.

**Defining a Group by Including Members Explicitly**

1. On the **Create Group** page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Borrowed Workers</td>
</tr>
<tr>
<td>Description</td>
<td>Workers who support accounting workers.</td>
</tr>
<tr>
<td>Locked</td>
<td>No</td>
</tr>
<tr>
<td>Evaluation Period</td>
<td>As of run date</td>
</tr>
</tbody>
</table>

2. In the **Include or Exclude Members** section, click **Create** five times.
3. Complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Name</td>
<td>Tate Scott</td>
<td>Veronica</td>
<td>Adriano</td>
<td>Fen Lee</td>
<td>Marsha Able</td>
</tr>
<tr>
<td>Condition</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
</tr>
</tbody>
</table>

4. Click **Save and Close**.
5. On the Manage Groups page, click **Refresh Group Membership**.
6. On the Refresh Group Membership page, select **Borrowed Workers** in the **Group** name choice list.
7. Select the **Evaluation Date** as the current date.
8. Select **No** in **Remove Future-Dated Group Members** choice list.
9. Select **Submit**.
10. In the **Search Results** region, select the **Borrowed Workers** group and select edit from the **Actions** menu.
11. Select **Yes** in the **Locked** choice list.

**Defining a Group by Including Members Explicitly**

1. On the Create Group page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Borrowed Workers</td>
</tr>
</tbody>
</table>
Define Time and Labor 28-41

| Description | This group contains workers who support accounting workers. |
| Locked | No |
| Evaluation Period | As of run date |

2. In the Include or Exclude Members section, click **Create** five times.

3. Complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Name</td>
<td>Tate Scott</td>
<td>Veronica Adriano</td>
<td>Fen Lee</td>
<td>Marsha Able</td>
<td>Priya Krishnan</td>
</tr>
<tr>
<td>Condition</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
<td>Include</td>
</tr>
</tbody>
</table>

4. Click **Save and Close**.

5. On the Manage Groups page, click **Refresh Group Membership**.

6. On the Refresh Group Membership page, select **Borrowed Workers** in the **Group name** choice list.

7. Select **Evaluation Date** as the current date.

8. Select **No** in **Remove Future-Dated Group Members** choice list.

9. Select **Submit**.

10. In the Search Results region, select the group, **Borrowed Workers** and select **Edit** from the **Actions** menu.

11. Select **Yes** in the **Locked** choice list.

12. Click **Save and Close**.

**Defining a Group by Embedding a Group**

1. On the Create Group page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Year End Processing</td>
</tr>
<tr>
<td>Description</td>
<td>Contains workers who would work on the year end financials.</td>
</tr>
<tr>
<td>Locked</td>
<td>No</td>
</tr>
<tr>
<td>Evaluation Period</td>
<td>For a date range. Number of Days Before Evaluation Date: 30 Number of Days After Evaluation Date: 30</td>
</tr>
</tbody>
</table>

2. In the **Include or Exclude Groups** section, click **Add** twice.

3. Complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Name</td>
<td>Accounting Workers</td>
<td>Borrowed Workers</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Condition</td>
<td>Include</td>
<td>Include</td>
</tr>
</tbody>
</table>

4. Click **Save and Close**.

5. On the Manage Groups page, click **Refresh Group Membership**.

6. On the Refresh Group Membership, select **Year End Processing** in the **Group** name choice list.

7. Select **Evaluation Date** as the current date.

8. Select **No** in **Remove Future-Dated Group Members** choice list.

9. Select **Submit**.

**FAQs for Manage HCM Groups**

**Why can't I edit some groups?**

You cannot edit predefined groups and groups that are associated with a worker time entry profile.

**Define Time Rules**

**Rule Template Components: How They Work Together**

A rule template is associated with a formula that contains predefined combinations of rule parameters and output values. Use rule templates to create time entry and time calculation rules. These rules contain the actual values for rule parameters and output parameters. Group rules of the same type into a rule set and assign rule sets to a worker or group of workers using the worker time processing profile.

The following figure shows the relationship between formula, rule templates, rules, and rule sets.
Formula

The delivered formulas associated with templates are created using Oracle Fusion Fast Formula. For example, a customer defined Rounding Formula rounds the reported hours to the nearest quarter hour. A formula can be attached to more than one rule template.

Rule Templates

The predefined rule parameter and output combinations derived from the formula apply only at the time of creating the rule. A rule template can be used to create more than one rule.

Create two types of rule templates:

<table>
<thead>
<tr>
<th>Rule Template Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Entry Rule Template</td>
<td>Contains configurations to define time entry rules that check the entered time and issue a business message, error, or warning. For example, you can define a time entry rule template to display an error message whenever the reported time entries exceed a maximum hours value.</td>
</tr>
</tbody>
</table>
Time Calculation Rule Template
Contains configurations to define time calculation rules that convert the calculated time entries into processed time. For example, you can create a time calculation rule template that takes the time entries reported for a week as input and, based on a threshold parameter, classifies the entries into calculated results. Hours above the threshold value are converted into a separate pay time type, such as Overtime. Hours under the threshold value remain the same pay time type, such as Regular.

Rules
Create two types of rules:

<table>
<thead>
<tr>
<th>Rule Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Entry Rule</td>
<td>Time entry rules validate the entered time and display a business message, error, or warning. For example, you can write rules to ensure that the worker has not entered more than a specified number of hours per week.</td>
</tr>
<tr>
<td>Time Calculation Rule</td>
<td>Time calculation rules convert entered time into processed and calculated time. For example, Overtime is not calculated the same in every state in the United States of America. Different time calculation rules are configured and assigned based on the primary work location of the workers.</td>
</tr>
</tbody>
</table>

You can control when the rule is applied. For example, you can apply the rules on save, on submit, or on resubmit of the time card. A rule is associated with one rule template and one formula.

Rule Sets
A rule set is a collection of rules or rule sets of the same type assigned to a group of workers with similar validation and time processing requirements.

Defining Rule Templates: Points to Consider

Define rule templates for each rule type by customizing the rule parameter and output parameter values.
Configure the following rule template options:
- Suppress duplicate message and reporting level
- Empty time cards
- Summation level and rule execution type
- Rule parameters and outputs
- Explanation

Suppress Duplicate Message and Reporting Level
Time entry rule messages are displayed when the time card is saved, submitted, resubmitted or deleted and time calculation rule results are processed when the time card is saved, submitted, or resubmitted.
On the Rule Template Definition page, specify whether to display the message just once or every time the message generation event takes place. Selecting Yes in the Suppress Duplicate Message Display field prevents the same message from being displayed again and again for the same rule violation and for different time entries.

For time entry rules, select the reporting level to specify the level at which the rule results must be displayed.

This table describes the reporting level options.

<table>
<thead>
<tr>
<th>Reporting Level</th>
<th>Rule Application Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details</td>
<td>Rule results are displayed for all time entries.</td>
</tr>
<tr>
<td>Day</td>
<td>Rule results are displayed for hours that are entered for the entire day.</td>
</tr>
<tr>
<td>Time Card</td>
<td>Rule results are displayed for hours that are entered for the entire period.</td>
</tr>
</tbody>
</table>

The suppress message display option works in combination with the reporting level option. For example, in a company, the maximum number of hours that can be reported for a week is 20 hours and a worker works for 10 hours per day for 5 days. If the reporting level is time card, then the message is displayed only once. However, if the reporting level is Day, then the message is displayed three times.

**Empty Time Cards Processing**

For time entry rules, specify whether to process time cards with zero time entry values. If you select Yes, then the rule processes all entries and not just those with hours. This zero hour processing option is only for time entry rules and not for time calculation rules.

**Summation Level and Rule Execution Type**

Select the summation level to specify the level at which the rule applies. This table describes the summation level options.

<table>
<thead>
<tr>
<th>Summation Level</th>
<th>Rule Application Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details</td>
<td>Process the rule against all time entries.</td>
</tr>
<tr>
<td>Day</td>
<td>Process the rule against hours entered for the entire day.</td>
</tr>
<tr>
<td>Time Card</td>
<td>Process the rule against hours entered for the entire period.</td>
</tr>
</tbody>
</table>

For time calculation rules, use the Rule Execution Type option to decide whether the output of rules must create new hour entries or update existing entries. For example, the time calculation rule - Threshold Overtime Rule compares the values entered by time card users with a defined threshold value of 8 hours.

- When the rule execution type is Create, and the time card user reports 10 hours of time, then the rule keeps the 10 hours intact and creates 2 additional hours of Overtime. This additional hours is only for the premium portion of the overtime.
- When the rule execution type is Update, then 10 hours of reported time is converted into 8 hours of Regular time and 2 hours of Overtime. This overtime attribute has a rate for both the straight and premium portions.
Rule Parameters and Outputs

On the Rule Parameters page, define the order in which the input parameters are displayed on the rule page. Lower number denotes a higher priority.

Specify an alternate name for the rule parameter name that is displayed on the rule definition page.

Select the parameter type that defines the values that the administrator using the template can enter for a specific parameter.

Examples

- The Exclude parameter type does not allow the template user to enter or see any parameter values.
- The Value Set parameter requires a parameter type.

Rule outputs are return values from the associated formula. In case of time calculation rules, you can add time attributes to different groups.

Also, you can add rule outputs. For example, the rule template Weekly Time Calculation Rule is based on the formula: WFM_THRESHOLD_TIME_CALCULATION_RULE and has two return values from the formula: OUT_MEASURE_UNDER and OUT_MEASURE_OVER. You can add two output values that store the attribute values: OUT_PAY_UNDER and OUT_PAY_OVER that store the values returned by the formula for OUT_MEASURE_UNDER and OUT_MEASURE_OVER.

Use the Grouping Structure option on the Outputs page to determine the administrator added time attributes that rule outputs are associated with. For example, 10 hours of Regular becomes 8 hours of REG (Group 1) and 2 Hours of Overtime (Group 2).

Explanation

On the Explanation page, describe the business purpose of the rule template using placeholders for rule parameter and output values that are replaced with the actual values during rule definition. For example, you can enter the business purpose of your rule template as follows: Overtime hours are generated when the reported hours exceed Max_Hours hours.

Time Calculation Rule Set Processing Order: Explained

The time calculation rules in the rule set are set to execute in a defined order. Processing order 1 executes before Processing order 2, and so on.

The following example illustrates the processing order for a rule set that incorporates two other rule sets.

Rule set A

<table>
<thead>
<tr>
<th>Processing Order</th>
<th>Rule Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rule 1</td>
</tr>
<tr>
<td>2</td>
<td>Rule 2</td>
</tr>
</tbody>
</table>

Rule set B

<table>
<thead>
<tr>
<th>Processing Order</th>
<th>Rule Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rule 3</td>
</tr>
<tr>
<td>2</td>
<td>Rule 4</td>
</tr>
</tbody>
</table>
Rule set C

<table>
<thead>
<tr>
<th>Processing Order</th>
<th>Rule Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rule 5</td>
</tr>
<tr>
<td>2</td>
<td>Rule set B</td>
</tr>
<tr>
<td>3</td>
<td>Rule 6</td>
</tr>
<tr>
<td>4</td>
<td>Rule set A</td>
</tr>
</tbody>
</table>

The order of processing rules in Rule Set C is as follows:
1. Rule 5  
2. Rule 3  
3. Rule 4  
4. Rule 6  
5. Rule 1  
6. Rule 2

Creating a Time Entry Rule Template: Worked Example

This example demonstrates how to create a time entry rule template that requires workers to enter a minimum of one hour per day. The following table summarizes the key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the template type?</td>
<td>Time entry rule</td>
</tr>
<tr>
<td>What is the formula name?</td>
<td>WFM_PERIOD_MINIMUM_TIME_ENTRY_RULE</td>
</tr>
<tr>
<td>What is the rule template name?</td>
<td>Minimum Hours Per Day Template</td>
</tr>
<tr>
<td>What is the rule subtype within the template type?</td>
<td>Business message</td>
</tr>
<tr>
<td>At what level is the rule applied?</td>
<td>Day</td>
</tr>
<tr>
<td>At what level is the result of rule execution displayed?</td>
<td>Day</td>
</tr>
<tr>
<td>Do you want to display the message only once per page action?</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you want to include empty time cards in the rule template processing?</td>
<td>No</td>
</tr>
<tr>
<td>What are the time card actions to which the rule must be applied?</td>
<td>Save, Submit, Resubmit</td>
</tr>
<tr>
<td>What is the type of output message for the OUT_MSG parameter?</td>
<td>Error</td>
</tr>
<tr>
<td>What is the display name for the OUT_MSG parameter?</td>
<td>Severity of the output message.</td>
</tr>
<tr>
<td>What is the explanation for the rule?</td>
<td>When the total hours defined in the time category [WORKED_TIME_CONDITION] are less than the minimum number of hours [DEFINED_LIMIT], then the message [MESSAGE_CODE] is displayed.</td>
</tr>
</tbody>
</table>
The following table summarizes the parameter type and display name for rule parameters.

<table>
<thead>
<tr>
<th>Rule Parameter</th>
<th>Parameter Type</th>
<th>Display Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINED_LIMIT</td>
<td>Fixed Number</td>
<td>Minimum number of hours before the message is displayed</td>
</tr>
<tr>
<td>MESSAGE_CODE</td>
<td>Message</td>
<td>Message displayed when the minimum hours parameter is not met</td>
</tr>
<tr>
<td>WORKED_TIME_CONDITION</td>
<td>Time Category</td>
<td>Time category that defines the hour entries that are considered when this rule is executed.</td>
</tr>
</tbody>
</table>

### Creating a Time Entry Rule Template

1. In the Setup and Maintenance work area, search for **Manage Rule Templates** and click Go to Task to access the Manage Rule Templates page.
2. Click **Create**.
3. In the Create rule Template dialog box, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template Type</td>
<td>Time entry rule</td>
</tr>
<tr>
<td>Formula Name</td>
<td>WFM_PERIOD_MINIMUM_TIME_ENTRY_RULE</td>
</tr>
</tbody>
</table>
4. Click **Continue**.
5. On the Definition page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Minimum TER Template</td>
</tr>
<tr>
<td>Description</td>
<td>Time entry rule template to compare time card entries against a defined minimum value.</td>
</tr>
<tr>
<td>Rule Classification</td>
<td>Working time directive</td>
</tr>
<tr>
<td>Summation Level</td>
<td>Day</td>
</tr>
<tr>
<td>Reporting Level</td>
<td>Day</td>
</tr>
<tr>
<td>Suppress Duplicate Messages Display</td>
<td>Yes</td>
</tr>
<tr>
<td>Process Empty Time Card</td>
<td>Yes</td>
</tr>
</tbody>
</table>
6. In the Time Card Events that Trigger Rule section, select **Save**, **Submit**, and **Resubmit**.
7. Click **Next**.
8. On the Parameters page, complete the fields, as shown in the table.
### Field | DEFINED_LIMIT | MESSAGE_CODE | WORKED_TIME_CONDITION
---|---|---|---
Display Sequence | 1 | 2 | 3
Parameter Type | Fixed Number | Message | Time Category
Display Name | Minimum number of hours before the message is displayed | Message displayed when the minimum hours parameter is exceeded | Time category that defines the hour entries that apply to the minimum value

9. Click Next.

10. On the Outputs page, for the OUT_MSG parameter, complete the fields, as shown in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>1</td>
</tr>
<tr>
<td>Message Severity</td>
<td>Error</td>
</tr>
<tr>
<td>Display Name</td>
<td>Severity of the output message.</td>
</tr>
</tbody>
</table>

11. Click Next.

12. On the Explanation page, enter this description in the Explanation field, by selecting the rule parameters from the Message Tokens field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Tokens</td>
<td>Time category that defines the hour entries that apply to the minimum value, Minimum number of hours before the message is displayed, and Message displayed when the minimum hours parameter is exceeded</td>
</tr>
<tr>
<td>Explanation</td>
<td>When the total hours defined in the time category (Time category that defines the hour entries that apply to the minimum value) are less than the minimum number of hours (Minimum number of hours before the message is displayed), then the message (Message displayed when the minimum hours parameter is exceeded) is displayed.</td>
</tr>
</tbody>
</table>

13. Click Next.

14. Review the information and click Save and Close.
Creating a Time Entry Rule: Worked Example

This example demonstrates how to create a time entry rule that requires workers to enter at least one hour per day. The rule is executed when the time card is either saved or submitted.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the rule name?</td>
<td>Minimum Hours Per Day Rule</td>
</tr>
<tr>
<td>What is the rule template type?</td>
<td>Time entry rule</td>
</tr>
<tr>
<td>What is the rule template name?</td>
<td>Minimum Hours Per Day Template</td>
</tr>
<tr>
<td>What is the severity of the output message?</td>
<td>Error</td>
</tr>
<tr>
<td>What are the time card actions on which the rule must be applied?</td>
<td>Save, Submit, and Resubmit</td>
</tr>
</tbody>
</table>

The following table summarizes the actual values for the rule parameters.

<table>
<thead>
<tr>
<th>Rule Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum number of hours before the message is displayed</td>
<td>1</td>
</tr>
<tr>
<td>Message displayed when the minimum hours parameter is not met</td>
<td>HWM_FF_TER_PERIOD_LS_MIN_ERR</td>
</tr>
<tr>
<td>Time category that defines the hour entries that apply to the minimum value</td>
<td>All Payroll Entries</td>
</tr>
</tbody>
</table>

Prerequisites

1. Create a time entry rule template named Minimum Hours Per Day Template.

Creating a Time Entry Rule

1. In the Setup and Maintenance work area, search for Manage Rules and click Go to Task to access the Manage Rules page.

2. Click Create.

3. On the Create Rule page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Minimum Hours Per Day Rule</td>
</tr>
<tr>
<td>Template Type</td>
<td>Time entry rule</td>
</tr>
<tr>
<td>Rule Template Name</td>
<td>Minimum Hours Per Day Template</td>
</tr>
</tbody>
</table>

4. Click Continue.

5. On the Create Rule: Minimum Hours Per Day Rule page, complete the field, as shown in this table.
6. In the Time Card Events that Trigger Rule section, select **Save**, **Submit**, and **Resubmit**.

7. In the Rule Parameters section, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum number of hours before the message is displayed</td>
<td>1</td>
</tr>
<tr>
<td>Message displayed when the minimum hours parameter is exceeded</td>
<td>HWM_FF_TER_PERIOD_LS_MIN_ERR</td>
</tr>
<tr>
<td>Time category that defines the hour entries that apply to the minimum value.</td>
<td>TCAT_REGULAR</td>
</tr>
</tbody>
</table>

8. In the Outputs section, for the **OUT_MSG** output parameter, select **Error** in the **Message Severity** option.

9. Click **Save and Close**.

### Creating a Time Entry Rule Set: Worked Example

This example demonstrates how to create a time entry rule set that requires workers to report at least 8 hours a day, but not more than 40 hours a week. If they enter less than 8 hours a day or more than 40 hours a week, an error message is displayed.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the name of the rule set?</td>
<td>Hours Worked</td>
</tr>
<tr>
<td>What is the type of Rule?</td>
<td>Time entry rule</td>
</tr>
<tr>
<td>What are the rule members of the rule set?</td>
<td>Two Rules - Maximum Hours Per Week Rule and Minimum Hours Per Day Rule</td>
</tr>
<tr>
<td>What is the time category that determines if the rules must be executed?</td>
<td>All Payroll Time Entries</td>
</tr>
</tbody>
</table>

### Prerequisite

1. Create the following rules: Maximum Hours Per Week and Maximum Hours Per Day

### Creating a Time Entry Rule Set

1. In the Setup and Maintenance work area, search for **Manage Rule Sets** and click Go to Task to access the Manage Rule Sets page.
2. Click Create.

3. Enter Hours Worked in the Name field.

4. Select Time entry rule as the rule type.

5. Click Continue.

6. On the Basic Definition page, complete the field, as shown in this table.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Contains rules where the worker cannot work more than 40 hours in a week and where they need to work a minimum of 8 hours for day.</td>
</tr>
</tbody>
</table>

7. In the Rule Set Members section, click Add twice to add two rule members.

8. Complete the fields for the two rule members, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value for the First Rule</th>
<th>Value for the Second Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Order</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Member Type</td>
<td>Rule</td>
<td>Rule</td>
</tr>
<tr>
<td>Name</td>
<td>Maximum Hours Per Week Rule</td>
<td>Minimum Hours Per Day Rule</td>
</tr>
<tr>
<td>Time Category Condition</td>
<td>All Payroll Time Entries</td>
<td>All Payroll Time Entries</td>
</tr>
</tbody>
</table>

9. Click Save and Close.

Creating a Time Calculation Rule Template: Worked Example

This example demonstrates how to create a time calculation rule template that compares the reported hours with a threshold value. The hours above the threshold value are converted into a single pay type and the hours below the threshold value are converted into a new pay type.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the template type?</td>
<td>Time calculation rule</td>
</tr>
<tr>
<td>What is the formula name?</td>
<td>WFM_THRESHOLD_TIME_CALCULATION_RULE</td>
</tr>
<tr>
<td>What is the template name?</td>
<td>Threshold template</td>
</tr>
<tr>
<td>What is the rule subtype within the template type?</td>
<td>Threshold</td>
</tr>
<tr>
<td>Should the result of rule calculation modify an existing value or create a new value?</td>
<td>Update an existing value</td>
</tr>
<tr>
<td>At what level the rule is applied?</td>
<td>Day</td>
</tr>
</tbody>
</table>
What are the time card actions to which the rule must be applied? | Save, Submit, and Resubmit
---|---
What are the rule outputs to add? | PTT_UNDER, PTT_OVER
What are the formula parameters that you want to include in the message? | Threshold number of hours before overtime is calculated, Time category that defines the hour entries that amount to the threshold value, Pay time type value that is below the threshold value, and Pay time type value that is above the threshold value
What is the explanation for the rule? | The total hours defined in the time category [WORKED_TIME_CONDITION] are compared to the threshold value [DEFINED_LIMIT]. If the hours exceed the threshold value, the hours under the threshold will have a pay type of [PTT_UNDER] and the hours above the threshold value will have the pay type of [PTT_OVER]

The following table summarizes the key decisions for rule parameters.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>DEFINED_LIMIT</th>
<th>WORKED_TIME_CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the parameter type for the rule parameters?</td>
<td>Fixed Number</td>
<td>Time Category</td>
</tr>
<tr>
<td>What is the order in which the rule parameters must be displayed when defining rules?</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>What is the display name for the rule parameters?</td>
<td>Overtime Threshold Value</td>
<td>Time category that defines the hour entries that apply to the minimum value</td>
</tr>
</tbody>
</table>

The following table summarizes the key decisions for rule outputs.

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What output parameters are added?</td>
<td>PTT_UNDER and PTT_OVER</td>
</tr>
<tr>
<td>What are the output groups for these parameters?</td>
<td>Group 1 for under the threshold and Group 2 for over the threshold.</td>
</tr>
<tr>
<td>What is the time attribute that the output parameters are based on?</td>
<td>Payroll Time Type</td>
</tr>
</tbody>
</table>

**Creating a Time Calculation Rule Template**

1. In the **Setup and Maintenance** work area, search for **Manage Rule Templates** and click **Go to Task** to access the **Manage Rule Templates** page.
2. Click **Create**.
3. Select **Time calculation rule** in the **Template Type** field.
4. Select **WFM_THRESHOLD_TIME_CALCULATION_RULE** in the **Formula Name** field.
5. Click **Continue**.
6. On the **Definition** page, complete the fields, as shown in this table.
7. In the Time Card Events that Trigger Rule section, select Save.
8. Click Next.
9. On the Parameters page, complete the fields, as shown in the table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Defined Limit</th>
<th>Worked Time Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Parameter Type</td>
<td>Fixed number</td>
<td>Time category</td>
</tr>
<tr>
<td>Display Name</td>
<td>Overtime Threshold Value</td>
<td>Time category that defines the hour entries that amount to the threshold value</td>
</tr>
</tbody>
</table>

10. Click Next.
11. On the Outputs page, add two rule outputs - PTT_UNDER and PTT_OVER.
12. Complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Out Measure</th>
<th>PTT Under</th>
<th>Out Measure</th>
<th>PTT Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Sequence</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Output Group</td>
<td>Output Group: 1</td>
<td>Output Group: 1</td>
<td>Output Group: 2</td>
<td>Output Group: 2</td>
</tr>
<tr>
<td>Time Attribute</td>
<td>Measure</td>
<td>Payroll Time Type</td>
<td>Measure</td>
<td>Payroll Time Type</td>
</tr>
<tr>
<td>Value Type</td>
<td>NA</td>
<td>Fixed Text</td>
<td>NA</td>
<td>Fixed Text</td>
</tr>
<tr>
<td>Display Name</td>
<td>Calculated hours that are below the threshold value</td>
<td>Pay Time Type value that is below the threshold value</td>
<td>Calculated hours that are above the threshold value</td>
<td>Pay Time Type value that is above the threshold value</td>
</tr>
</tbody>
</table>

13. Click Next.
14. On the **Explanation** page, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Message Tokens</strong></td>
<td>OUT_MEASURE_UNDER, PTT_UNDER, OUT_MEASURE_OVER, PTT_OVER</td>
</tr>
<tr>
<td><strong>Explanation</strong></td>
<td>The total hours defined in the time category [Time category that defines the hour entries that amount to the threshold value] are compared to the threshold value [Threshold number of hours before overtime is calculated]. If the hours exceed the threshold value, the hours under the threshold will have a pay time type of [Pay Time Type value that are below the threshold value] and the hours above the threshold value will have the pay time type of [Pay Time Type value that are above the threshold value].</td>
</tr>
</tbody>
</table>

15. Click **Next**.

16. Review the information and click **Save and Close**.

**Creating a Time Calculation Rule: Worked Example**

A company requires a time calculation rule to compare the reported hours with a threshold value. If the reported hours exceed the threshold value, the hours under the threshold value are classified as Regular and the hours above the threshold value are classified as Overtime.

The following table summarizes the key decisions for this scenario:

<table>
<thead>
<tr>
<th>Decision to Consider</th>
<th>In this Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the rule name?</td>
<td>Daily threshold rule</td>
</tr>
<tr>
<td>What is the template type?</td>
<td>Time calculation rule</td>
</tr>
<tr>
<td>What is the template name?</td>
<td>Threshold Hours Template</td>
</tr>
</tbody>
</table>
| What are the actual values for the rule parameters that were configured in the Daily Threshold Template? | • Threshold number of hours before overtime is calculated: 8  
• Time category that defines the hour entries that amount to the threshold value: Worked Hour Entry |
| What are the actual values for the output parameters? | Pay Time Type value that are below the threshold value: Straight Time  
Pay Time Type value that are below the threshold value: Premium Time |
**Prerequisites**

1. Create a time category named Worker Hour Entry.
2. Create a time calculation rule template named Threshold Hours Template.

**Creating a Time Calculation Rule**

1. In the Setup and Maintenance work area, search for **Manage Rules** and click Go to Task to access the Manage Rules page.
2. Click **Create**.
3. On the **Create Rule** page, complete the fields, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Daily threshold rule</td>
</tr>
<tr>
<td>Template Type</td>
<td>Time calculation rule</td>
</tr>
<tr>
<td>Rule Template Name</td>
<td>Weekly Threshold Template</td>
</tr>
</tbody>
</table>

4. On the Basic Definition page, enter the following description for the Rule: Rule that takes time entries reported for a day and based on a threshold parameter, splits the entries into calculated results.

5. In the Rule Parameters section, complete the fields, as shown in the table.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold number of hours before overtime is calculated.</td>
<td>40</td>
</tr>
<tr>
<td>Time category that defines the hour entries that amount to the threshold value</td>
<td>Worker Hour Entry</td>
</tr>
</tbody>
</table>

6. In the Outputs section, complete the fields, as shown in the table:

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Time Type value that is below the threshold value.</td>
<td>Straight Time</td>
</tr>
<tr>
<td>Pay Time Type value that is above the threshold value.</td>
<td>Premium Time</td>
</tr>
</tbody>
</table>

7. Click **Save and Close**.

**Creating a Time Calculation Rule Set: Worked Example**

This example demonstrates how to create a time calculation rule set.

The following table summarizes the key decisions for this scenario:
**Decision to Consider**

<table>
<thead>
<tr>
<th>What is the name of the Rule Set?</th>
<th>Overtime Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the type of Rule?</td>
<td>Time calculation rule</td>
</tr>
<tr>
<td>What are the contents of the rule set?</td>
<td>Two time calculation rules - Weekly threshold rule and Daily threshold rule</td>
</tr>
</tbody>
</table>

---

**Prerequisites**


**Creating a Time Calculation Rule Set**

1. In the Setup and Maintenance work area, search for Manage Rule Sets and click Go to Task to access the Manage Rule Sets page.

2. Click **Create**.

3. Enter **Overtime Hours** in the **Rule Name** field.

4. Select **Time calculation rule** as the template type.

5. Enter 6/14/13 in the **Effective Start Date** field.

6. Click **Continue**.

7. On the Basic Definition page, complete the field, as shown in this table.

<table>
<thead>
<tr>
<th>Display Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Contains rules where anything more than 40 hours a week or 8 hours a day is overtime.</td>
</tr>
</tbody>
</table>

8. In the Rule Set Members section, click **Add** twice to add two rule members.

9. Complete the fields for the two rule members, as shown in this table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value for the First Rule</th>
<th>Value for the Second Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Order</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Member Type</td>
<td>Rule</td>
<td>Rule</td>
</tr>
<tr>
<td>Name</td>
<td>Weekly_Overtime</td>
<td>Daily_Overtime</td>
</tr>
</tbody>
</table>

10. Click **Save and Close**.

**FAQs for Define Time Rules**

**Why can’t I edit some rule templates?**

You cannot edit templates that have been used to create rules, regardless of whether these rules are associated with a worker time processing profile or not.
**Why can't I edit some rules?**

You cannot edit rules that have been used to generate time card entries, regardless of whether these rules are associated with a time processing profile or not.

**Define Time and Labor Setup Profiles**

**Setup Profiles: Explained**

A setup profile associates workers with a set of configurable time card layouts and rules. Assign a profile either to an individual worker or a group of workers. For example, an organization has workers who report only exceptions to the normal work schedule and workers who report time against projects and tasks. You can configure profiles such that each set of workers enters time on a different time card layout, has their time cards approved in different ways, has their time card data transferred to different time consumers, and has different rules applied to their time cards.

**Profile Types**

Create two types of profiles.

<table>
<thead>
<tr>
<th>Profile Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worker time entry profile</td>
<td>Contains layouts for reporting time and rules for time entry actions that control when workers can update their time.</td>
</tr>
<tr>
<td>Worker time processing profile</td>
<td>Contains the time card period, time entry and time calculation rule sets for both the worker and the time consumer that provides rules for validation, approval and transfer processing of time entries.</td>
</tr>
</tbody>
</table>

**Profile Values**

When configuring the worker time entry profile, select the layout set that must be associated with the profile. Select the time card actions, such as create, edit, view, and delete, that the user can perform on the time card and enter the number of days into the past or future that these actions are enabled. For example, you can restrict the regular workers to edit only unsubmitted time cards within 45 days of creating the time card. If you do not enter the number of days, then the time card user has unlimited access to perform those time card actions.

All the profile configurations that you do on the Profile Values page are date effective. When you change these profile configurations, a history of changes is
maintained. Edit the version of the configurations that was current on a specific date.

**Group Assignment**

Assign a single profile to more than one group of workers at a time. For example, the time entry profile USA_Workers can be assigned to groups - Full_Time_USAWorkers and Part_Time_USAWorkers. However, a single group cannot be associated with more than one profile of the same type at any given time. For example, the Full_Time_USAWorkers cannot have both the USA_Workers time entry profile and UK_Workers time entry profile assigned to it.

The assignment of a profile to groups is based on start and end dates.

**Priority**

Assign each setup profile a unique priority number with reference to other profiles of the same profile type. The lowest priority number determines the profile used to create the time card if a worker is eligible for more than one profile. Number one is the highest priority. For example, if a single worker is a member of two groups and each group is associated with a different time entry profile, the profile with the lower priority number is used for that worker.

**Default Profile**

By default, all workers in an organization are members of a delivered group that has a profile assigned to it. A worker who is not eligible for any setup profile through either individual or group assignment is assigned the default profile.

**Worker Profile: How It Is Derived**

Through group membership, a worker can be eligible for multiple time entry and time processing profiles. However, to determine the time card period, rules, time card access privileges, and layouts to be displayed for the worker, the application derives only one worker time entry profile and one time processing profile for that worker.

**Settings that Affect Profile Assignment**

- When you individually assign a worker to a setup profile, then this individual assignment overrides the group profile assignment.

- When the worker is eligible for more than one profile of the same type, the priority number assigned to the profile determines the profile used. Lower numbers have higher priority.

- When a worker is not eligible for any setup profile, then the default setup profile is assigned to the worker.
How the Worker Profile is Derived

The following figure shows how the worker time entry and worker time processing profile are determined.

Troubleshooting Time Card Profile Assignment: Explained

When the time card layout or processing rules are not as expected for a worker or group, use the Manage Setup Profiles task to investigate and correct the profile assignment.

Comparing Profiles

Select a worker, specify the profile evaluation date, and click the Evaluate button to list the setup profiles that are assigned to the worker effective on that date. Select up to three of the worker’s setup profiles and view the various time entry values for those profiles. Compare setup profile values from both individual and group assignments and decide if the worker must be assigned a new profile that overrides any profile associations based on group memberships.
Overriding Group Profile

If a worker’s group membership results in incorrect time card or processing, you can use the Assign Profile to Person option to individually assign a profile to the worker. This profile assignment overrides all profile associations based on group memberships.

Disassociating a Profile Assigned to an Individual

Disassociate a profile that is assigned to a person using the Delete Override option.

In such a case,

- If there are multiple setup profiles that have been individually assigned to a person, then the profile with the lowest priority number takes the priority. For example, you assign the worker to profiles A and B and profile A has a higher priority than B. Based on a worker’s change in job responsibility, profile A is no longer accurate for the worker. To disassociate profile A, click the Delete Override option. The application automatically assigns profile B to the worker.

- If there are no other individual setup profile assignments, then the group profile takes priority.
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 Oracle Cloud 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.
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.

Access to Person Data

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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Job or Abstract Role</th>
<th>Security Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Fusion Assets</td>
<td>Asset Accountant</td>
<td>View All Workers</td>
</tr>
</tbody>
</table>
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.
### 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:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Tasks</td>
</tr>
<tr>
<td>Name</td>
<td>Manage Data Role and Security Profiles</td>
</tr>
</tbody>
</table>

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**.
Define Extensions: 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 described in the Oracle Fusion Applications Administrator's Guide and Oracle Fusion Applications Extensibility Guide for Developers. As you read content from these guides, note that the guides mention 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.

Note

Oracle Enterprise Manager Fusion Applications Control is not available for Oracle Cloud implementations.

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, Creating, and Editing Job Definitions**

• You can access predefined and custom job definitions. In the table on the Manage Job Definitions tab, the Name column displays an asterisk for predefined job definitions. Refer to the Oracle Fusion Applications Administrator’s Guide.

See: Viewing Job Definitions

• You or a technical administrator can create jobs based on Java, PL/SQL, Oracle Business Intelligence (BI) Publisher, or any other supported technology. Every predefined or custom job must have a job definition. For Oracle Cloud implementations, custom job definitions can be created only for custom jobs based on Oracle BI Publisher reports. Refer to the Oracle Fusion Applications Administrator’s Guide.

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.

• You can edit all aspects of custom job definitions. For predefined job definitions, you can’t update parameters, but you can determine if user properties are read-only or not. You can also edit certain aspects of predefined definitions, which are described as job properties in the Oracle Fusion Applications Extensibility Guide for Developers.

See: Customizing Existing Oracle Enterprise Scheduler Job Properties

**Managing List of Values Sources: Highlights**

A list of values source for Oracle Enterprise Scheduler job definitions determines where a list of values comes from and what the specific values are. These lists of values are used in parameters and application defined properties of job definitions. For example, you can use a source of country values for a Country job parameter.

**Note**
Since parameters for predefined job definitions cannot be edited, list of values sources are only for parameters in custom job definitions.

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

Managing Job Sets: Highlights

Oracle Enterprise Scheduler job set definitions contain metadata that identify the jobs to be included in a single submission. Instead of submitting jobs separately to process data, and in some cases, generate output, users can submit one job set that contains the desired jobs. The job set definition also determines if the jobs run in serial or parallel, or based on other predetermined logic.

A job set can contain any number of individual jobs as well as other job sets. There can also be multiple levels of nested job sets within a single job set. For example, a job set can include three jobs and two job sets, one of which contains another job set.

Managing job sets is fully described in the Oracle Fusion Applications Administrator's Guide.

Creating and Editing Job Sets
- The Oracle Fusion Applications Administrator's Guide describes accessing job sets from Oracle Enterprise Manager Fusion Applications Control. You can also access job sets by starting in the Setup and Maintenance Overview page and using the Enterprise Scheduler job tasks for your applications.
  See: Creating and Editing Job Sets

Contextual Addresses

Setting Up the Mapping Service for Contextual Addresses: Points to Consider

A contextual address is marked with an orange square contextual action icon that can be clicked to display the address on a map. Use the Mapping Service
for Contextual Addresses profile option to specify the web mapping service to be used to display the map. In the Setup and Maintenance work area, go to the Manage Administrator Profile Values task to set the profile option value.

**Profile Option Default**

By default, the Mapping Service for Contextual Addresses profile option has no value. Until you enter a valid value for this profile option, users get an error when they try to open a map for any contextual address.

**Profile Option Value**

After you find and select the Use the Mapping Service for Contextual Addresses profile option, enter a mapping service URL in the Profile Value column, for example:

- http://maps.yahoo.com/maps_result.php?q1=
- http://bing.com/maps/?v=2&encType=1&where1=

 Optionally, add parameters to the URL. For example, to avoid a locator box in Google Maps, add &iwloc=& to the URL, so that you enter http://maps.google.com/maps?iwloc=&amp;output=embed&q= as the profile value.

**FAQ for Privacy Statement**

**How can I enable the privacy statement?**

Use the Privacy Statement URL profile option to enable the Privacy Statement menu item in the global area. This menu item in the Settings and Actions menu is disabled by default.

Open the Setup and Maintenance work area, and use the Manage Applications Core Administrator Profile Values task to find the Privacy Statement URL profile option. In the Profile Value column, enter the full URL of the web page that contains the privacy content you want the menu item to link to.
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 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.

Note

- Only the translation in the current user language is moved.
- The Oracle Social Network business objects and the Navigator menu customizations are moved using the customization sets on the Customization Migration page instead of using the export and import function in the Setup and Maintenance work area.

<table>
<thead>
<tr>
<th>Business Object Name</th>
<th>Moved Functional Item</th>
<th>Effect on the Scope of Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Message</td>
<td>Messages and associated tokens</td>
<td>No parameters: all messages are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey: only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>messageName/applicationId: only the specified message is moved.</td>
</tr>
<tr>
<td>Application Taxonomy</td>
<td>Application taxonomy modules and components</td>
<td>No parameters: all taxonomy modules and components are moved.</td>
</tr>
<tr>
<td>Application Attachment Entity</td>
<td>Attachment entities</td>
<td>No parameters: all attachment entities are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey: only attachment entities belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
</tbody>
</table>
| 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 Category | Document sequences and their assignments | No parameters: all sequences are moved.  
moduleType/moduleKey: only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved  
name: only the specified document sequence is moved. |
| Application Descriptive Flexfield | Descriptive flexfield registration data and setup data | No parameters: all descriptive flexfields are moved.  
moduleType/moduleKey: only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  
descriptiveFlexfieldCode/applicationId: only the specified descriptive flexfield is moved.  

Note  
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.  

Note  
Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. |
| Application Extensible Flexfield | Extensible flexfield registration data and setup data, including categories | No parameters: all extensible flexfields are moved  
moduleType/moduleKey: only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  
extensibleFlexfieldCode/applicationId: only the specified extensible flexfield is moved.  

Note  
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.  

Note  
Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. |
| Application Key Flexfield | Key flexfield registration data and setup data | No parameters: all key flexfields are moved.  
moduleType/moduleKey: only key flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  
keyFlexfieldCode/applicationId: only the specified key flexfield is moved.  

**Note**  
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.  

**Note**  
Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved. |
| --- | --- | --- |
| Application Flexfield Value Set | Value set setup data | No parameters: all value sets are moved.  
moduleType/moduleKey: only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  
valueSetCode: only the specified value set is moved.  

**Note**  
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>| 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. |</p>
<table>
<thead>
<tr>
<th>Application Reference Language</th>
<th>Language data</th>
<th>No parameters: all languages are moved.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Reference Natural Language</td>
<td>Natural language data</td>
<td>No parameters: all natural languages are moved.</td>
</tr>
<tr>
<td>Application Reference Territory</td>
<td>Territory data</td>
<td>No parameters: all territories are moved.</td>
</tr>
<tr>
<td>Application Reference Time zone</td>
<td>Time zone data</td>
<td>No parameters: all time zones are moved.</td>
</tr>
<tr>
<td>Application Standard Lookup</td>
<td>Standard lookup types and their lookup codes</td>
<td>No parameters: all standard lookups are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey: only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lookupType: only the specified common lookup is moved.</td>
</tr>
<tr>
<td>Application Common Lookup</td>
<td>Common lookup types and their lookup codes</td>
<td>No parameters: all common lookups are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey - only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lookupType: only the specified common lookup is moved.</td>
</tr>
<tr>
<td>Application Set-Enabled Lookup</td>
<td>Set-enabled lookup types and their lookup codes</td>
<td>No parameters: all set-enabled lookups are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey: only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lookupType: only the specified set-enabled lookup is moved.</td>
</tr>
<tr>
<td>Application Profile Category</td>
<td>Profile categories</td>
<td>No parameters: all profile categories are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moduleType/moduleKey: only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>name/applicationId: only the specified category is moved.</td>
</tr>
</tbody>
</table>
| Application Profile Option | Profile options and their values | No parameters: all profile options and their values are moved.  
moduleType/moduleKey: only profile options and their values belonging to the specified module are moved.  
profileOptionName: only the specified profile option and its values are moved. |
|----------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Application Profile Value  | Profile options and their values | No parameters: all profiles and their values are moved.  
moduleType/moduleKey: only profiles and their values belonging to the specified module are moved.  
categoryName/categoryId: only profiles and their values belonging to the specified category are moved.  
profileOptionName: only the specified profile and its values are moved. |
| Application Reference Data Set | Reference data sets | No parameters: all sets are moved. |
| Application Reference Data Set Assignment | Reference data set assignments | determinantType: only assignments for the specified determinant type are moved.  
determinantType/referenceGroupName: only assignments for the specified determinant type and reference group are moved. |
| Application Tree Structure | Tree structures and any labels assigned to the tree structure | No parameters: all tree structures (and their labels) are moved.  
moduleType/moduleKey: only tree structures (and their labels) belonging to the specified module are moved.  
treeStructureCode: only the specified tree structure (with its labels) is moved. |
<table>
<thead>
<tr>
<th>Application Tree</th>
<th>Tree codes and versions</th>
<th>No parameters: all trees are moved.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>moduleType/moduleKey</strong>: only trees belonging to the specified module are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>treeStructureCode</strong>: only trees belonging to the specified tree structure are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TreeStructureCode/TreeCode</strong>: only trees belonging to the specified tree structure and tree code are moved.</td>
</tr>
<tr>
<td>Application Tree Label</td>
<td>Tree structures and any labels assigned to the tree structure</td>
<td>No parameters: all tree structures (and their labels) are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>moduleType/moduleKey</strong>: only tree structures (and their labels) belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>treeStructureCode</strong>: only the specified tree structure (with its labels) is moved.</td>
</tr>
<tr>
<td>Application Data Security Policy</td>
<td>Database resources, actions, conditions, and data security policies</td>
<td>No parameters: all database resources/actions/conditions/policies are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>moduleType/moduleKey</strong>: only database resources/actions/conditions/policies belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>objName</strong>: only the specified database resource along with its actions/conditions/policies is moved.</td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td>• If the policies being moved contain reference to newly created roles, move the roles before moving the policies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If the source and target systems use different LDAPs, manually perform the GUID reconciliation after moving the data security policies.</td>
</tr>
<tr>
<td>Application Activity Stream</td>
<td>Activity stream options</td>
<td>No parameters: all activity stream options are moved.</td>
</tr>
</tbody>
</table>
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.

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.

**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.

**Note**

Only the translation in the current user language is moved.

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, attachments, reference data sets, document sequences, messages, and data security.
2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.
8. Move created reference data sets before moving any objects that reference them, such as reference data set assignments and set-enabled lookups.
9. Move created document sequence categories before moving any objects that reference them, such as document sequences.

10. Move created tree labels before moving any objects that reference them, such as trees.

11. Move created data security objects and policies before moving any objects that reference them, such as value sets.

12. Move created value sets before moving any objects that reference them, such as flexfields.

13. Move created trees before moving any objects that reference them, such as key flexfields.
Web Services: Overview

Use web services to integrate web-based applications into your Oracle Fusion applications. Web services expose Oracle Fusion Applications business objects and processes to other applications through the use open standards-based technologies. Some of these technologies include Extensible Markup Language (XML), Simple Object Access Protocol (SOAP), Business Process Execution Language (BPEL), Web Services Description Language (WSDL), and XML schema definitions (XSD). Oracle Fusion Applications web services support development environments and clients that comply with these open standards.

Oracle Fusion Applications includes two types of web services: Application Development Framework (ADF) services and composite services. The following table describes the two types.

<table>
<thead>
<tr>
<th>Web Service Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF services</td>
<td>ADF services usually represent business objects, such as employees or purchase orders. ADF services typically expose standard operations, such as create, update, and delete. However, for locally-persisted objects, ADF services are not limited to these operations. Examples of ADF services include:</td>
</tr>
<tr>
<td></td>
<td>• Worker.changeHireDate - a service that updates the hire date of the worker business object.</td>
</tr>
<tr>
<td></td>
<td>• ProjectTask.createTask - a service that adds a task to the project task business object.</td>
</tr>
</tbody>
</table>
Composite services usually represent end-to-end business process flows that act on business events produced by the ADF services. Composite services orchestrate multiple object-based services, rules services, and human workflows. Examples of composite services include:

- `ProjectStatusChangeApproval.process` - a service that accepts the change in project status.
- `ScheduleOrchestrationOrderFulfillmentLineService.scheduleOrders` - a service that schedules resources used to fulfill an order.

Access Oracle Enterprise Repository for Oracle Fusion Applications to find detailed information about integration assets, such as web services. To view lists of web services, select these asset types:

- ADF Service
- ADF Service Data Object
- Composite Service
- Composite

Service methods and parameters, the service path, the WSDL URL and other technical data, appear on the Detail tab of each web service. Step-by-step instructions regarding the invocation of a service and the service XSD appear on the Documentation tab.

**Files for Import and Export**

**Files for Import and Export: Highlights**

The File Import and Export page accesses repositories of content. For example, each Oracle Fusion Applications instance connects to a single Oracle WebCenter Content server for content management.

The following documents describe use and administration of content management:

- Oracle WebCenter Content User's Guide for Content Server
- Oracle WebCenter Content System Administrator's Guide for Content Server

**Using Content Management**

- For information about what objects to upload and download, including templates for external data integration, refer to the Oracle Enterprise Repository for Oracle Fusion Applications.
- For general access to content management, including to all metadata and to manage accounts, use the Oracle WebCenter Content Server's standard service user interface.
See: Oracle WebCenter Content User’s Guide for Content Server

- For information on creating accounts in WebCenter Content accounts, refer to WebCenter Content System Administrator’s Guide for Content Server.

See: Accounts

- For information about naming accounts involved with import and export, see Files for Import and Export: Points to Consider.

- For programmatic upload and download to content management, refer to Oracle WebCenter Content System Administrator’s Guide for Content Server.

See: About Batch Loading

Security in Content Management

- For information about security, see the Security tab in Oracle Enterprise Repository for Oracle Fusion Applications.

- For information about roles such as the integration specialist roles for each product family, see the Oracle Fusion Applications security reference manuals for each offering. For example:


Files for Import and Export: Explained

You can import data into or export data out of Oracle Fusion Applications using repositories of content and processes for import and export.

Integration specialists stage data for import and export. Application administrators run processes to import data in repositories of content to application transaction tables, or retrieve data exported from applications.

Aspects of managing files for import and export involve the following.

- The File Import and Export page
- Interacting with content management
- Uploading for import
- Downloading for export
- File size

The File Import and Export Page

The File Import and Export page lets you upload content to or download content from the document repository of Oracle WebCenter Content Management. For information or assistance regarding general access to content management (including all metadata), to create and manage accounts, and to programmatically upload and download content, contact the WebCenter Content Administrator.
Interacting with Content Management

Everyone who uses the File Import and Export page is assigned to one or more accounts in content management. Accounts organize and secure access to content items.

Uploading for Import

Uploading a file creates a record. When you create a record, you must specify an account as well as the file. The account you specify determines which import process picks up that file to import it.

You can upload any file formats that can be parsed by the content repository being used, such as any MIME or content types. However, the format uploaded should conform to the requirements of the import process being used, such as a comma-separated values (CSV) file for the Load Interface File for Import process.

Downloading for Export

Processes you run to export data result in files in content management. Records in the search results table of the File Import and Export page provide links to the files for download.

Note

The owner of a data export file can be an application ID (APPID).

File Size

Upload and download does not intentionally apply the following:

- Data compression
- File chunking or splitting

The UPLOAD_MAX_DISK_SPACE parameter in the web.xml file determines the maximum allowable file size in content management. The default maximum size is 10240000 (10MB).

Files for Import and Export: Points to Consider

Interaction between the File Import and Export page and Oracle WebCenter Content requires securing content in an account. Oracle provides predefined accounts in Oracle WebCenter Content.

Areas of file import and export to consider involve the following.
- Security
- Searching records
- Accessing content in a new account
- Account names
- Deleting files

**Security**

The duty role needed for accessing the File Import and Export page is File Import and Export Management duty. This duty role is included in the predefined role hierarchy for integration specialist roles and product family administrator roles.

Files in Oracle WebCenter Content are associated with an account so that only users who have permission to a particular account can work with content items that belong to that account. You can only upload and download files to and from content management that are associated with accounts that you are entitled to access.

Oracle WebCenter Content does not support trailing slashes (/). Account names are appended with a $ to ensure each account is unique. Account names are dynamic so that if they overlap (one name is completely contained in another, longer name, such as US and USSales), each account is treated as discrete by access grants.

Security such as virus scanning is handled by the underlying integrated content management.

**Searching Records**

A record in Oracle WebCenter Content contains metadata used for accessing the file.

When a scheduled process has run to completion on a file, the record for the file includes a process ID.

**Accessing Content in a New Account**

When you create a new account in Oracle WebCenter Content and the content server is not restarted, access to content in the new account from the File Import and Export page may be delayed until the policy store is updated.

**Account Names**

If you create custom accounts for importing or exporting data, use the following conventions for naming the account: Do not include a slash "/" at the beginning or end. End with "$" to avoid partial string matching. Use "$/" as a separator in the hierarchical structure.

For example: `fin$/journal$/import$` The File Import and Export page transforms account names by removing the $. For example `fin$/journal$/import$` displays as `fin/journal/import`. The Remote Introduc Client (RIDC) HTTP command-line interface (CLI) transforms the account name you specify without $ symbols to one that includes them. For example, `fin/journal/import` becomes `fin$/journal$/import$` in WebCenter Content.
Deleting Files

You can delete one file at a time when you use the File Import and Export page. To delete multiple files simultaneously from the content repository, use the standard service page in Oracle WebCenter Content.

External Data Integration Services for Oracle Cloud

External Data Integration Services for Oracle Cloud: Overview

Use External Data Integration Services for Oracle Cloud to load data into Oracle Fusion Applications from external sources, such as legacy systems and third-party applications.

Components of External Data Integration Services for Oracle Cloud include:

- Templates and control files for formatting, structuring, and generating the data file.
- A general file load process for loading values from the data file into interface tables.
- Application-specific data import processes for transferring data from interface tables to the application tables in your Oracle Fusion Applications.

To use External Data Integration Services for Oracle Cloud to load data into Oracle Fusion Applications tables:

1. Prepare your data and generate a data file by using the product-specific templates and control files.
2. Transfer the data file to the integrated content management server.
3. Run the Load Interface File for Import process.
4. Correct data load errors, if necessary.
5. Run the appropriate application-specific process for validating and inserting the data into application tables.
6. Correct data import errors, if necessary.

For templates and control files, see assets with the File-Based Data Import type in Oracle Enterprise Repository for Oracle Fusion Applications (http://fusionappsor.oracle.com). For more information, see the Documentation tab for the Load Interface File for Import process in Oracle Enterprise Repository.

Locating File Import Templates: Explained

External data that you integrate into your Oracle Fusion Applications must be structured and formatted according to the properties of the fields and tables
that store the data. To prepare external data so that data types, structural relationships, and other properties of the data correctly align to the data types, structural relationships, and properties of the target tables, use the product-specific templates and control files in Oracle Enterprise Repository for Oracle Fusion Applications.

You access these files from the Documentation tab of the scheduled process that corresponds to the interface tables that store the data. To find the process, you can search the interface table or you can search the specific process, if you know it.

Aspects of preparing external data using templates involve these tasks.

- Finding templates and control files
- Downloading templates
- Opening XLS templates

**Finding Templates and Control Files**

To find the templates and control files:

1. Sign in to Oracle Enterprise Repository.
2. Enter the following information in the Search fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search String</td>
<td>FBDI</td>
</tr>
<tr>
<td>Type</td>
<td>Scheduled Process</td>
</tr>
<tr>
<td>FusionApps: Logical Business Area</td>
<td>(Optional) Select the value relevant to your implementation.</td>
</tr>
</tbody>
</table>

3. Click Search.
4. Select Load Interface File for Import from the results.

**Downloading Templates**

To download the templates:

1. Use the Search area to locate the Load Interface File for Import job and then select it from the search results.
2. Click the Documentation tab in the lower pane to see a list of links to application-specific import jobs.
3. Click a link to access the job.
4. Click the Documentation tab in the lower pane to see a list of links that access:
   - Control files, which describe the logical flow of the data load process
   - XLS templates, which include worksheets and macros that assist you in structuring, formatting, and generating your data file
5. Click the link to download the file.
Opening the XLS Template

To prepare your data in a spreadsheet format, use XLS templates:

1. Open the XLS template.
   The first worksheet in each file provides instructions for using the template.

Important
If you omit or fail to complete the instructions, data load errors and data import failure are likely.

2. Save a copy of the file.
3. Click the Generate CSV File button.
   The macro generates a comma-separated values (CSV) file and compresses it into a ZIP file; you must transfer the ZIP file to the content management server.

Using Excel Integration Templates to Generate Data Files: Points to Consider

Oracle Enterprise Repository for Oracle Fusion Applications includes integration templates to help you prepare external data for loading and importing. Each template includes table-specific instructions, guidelines, formatted spreadsheets, and best practices for preparing the data file for upload. Use the templates to ensure that your data conforms to the structure and format of the target application tables.

Templates

This list details the characteristics of the templates:

- Each interface table is represented by a separate worksheet.
- Each interface table field is represented by a worksheet column with a header in the first row.
- Each column header contains bubble text, or comments, that include details about the column, such as the expected data type, length, and, in some cases, other instructional text.
- The worksheet columns appear in the order that the control file processes the data file.
- The columns that you do not intend to use can be hidden, but not reordered or deleted.

Important
Deleting or reordering columns will cause the load process to fail and result in an unsuccessful data load.
• The external data must conform to the data type that the control file and process for the associated database column accepts.
• Date column values must appear in the YYYY/MM/DD format.
• Amount column values must appear with no separators other than a period (.) as the decimal separator.
• Negative values must be preceded by the minus (-) sign.
• Column values that require whole numbers include data validation to allow whole numbers only.
• Columns are formatted, where applicable, to match the target field data type to eliminate data entry errors.
• For columns that require internal ID values, refer to the bubble text for additional guidance about finding these values.
• When using Microsoft Excel to generate or update the CSV file, you must select YYYY/MM/DD as your regional setting for date values.

Using XML Templates to Generate Data Files for Integration: Highlights

Oracle Enterprise Repository for Oracle Fusion Applications includes XML integration templates assets that you use with Oracle Data Integrator (ODI) to generate import files from your external data.

To use the XML templates and generate the import files, you must:

• Install and set up Oracle Data Integrator
• Create source and target models
• Create integration projects

Note

In Oracle Cloud implementations, you must upload the ZIP file to the content management repository in Oracle Cloud. In non-Cloud implementations, you can streamline the data integration process by installing the content management document transfer utility so ODI performs the ZIP file transfer.

Oracle Data Integrator provides a solution for integrating complex data from a variety of sources into your Oracle Fusion applications. The Oracle Fusion Middleware Installation Guide for Oracle Data Integrator and the Oracle Fusion Middleware Developer's Guide for Oracle Data Integrator provide complete details pertaining to the installation and set up of this product.

Installing and Setting Up Oracle Data Integrator

• Install Oracle Data Integrator to use Oracle Fusion Applications XML integration templates. Refer to the Oracle Fusion Middleware Installation Guide for Oracle Data Integrator.

See: Installing Oracle Data Integrator
• Set up Oracle Data Integrator to use Oracle Fusion Applications XML integration templates. Refer to the Oracle Fusion Middleware Developer’s Guide for Oracle Data Integrator.

See: Setting up the Topology

Creating Source and Target Models

• Create the ODI models for both the source and target datastores. You determine the source models that you use based on the system or technology of the external data that you to import into your Oracle Fusion application. You create the target models by importing the XML files, which you download from Oracle Enterprise Repository. For more information, refer to the Oracle Fusion Middleware Developer’s Guide for Oracle Data Integrator.

See: Creating and Reverse-Engineering a Model

Configuring Integration Projects

• Create and configure an integration project, which entails selecting the knowledge modules, creating the interfaces, and mapping the source and target datastores. For more information, refer to the Oracle Fusion Middleware Developer’s Guide for Oracle Data Integrator.

See: Creating an Integration Project

Using XML Integration Templates to Generate Data Files: Points to Consider

Use XML templates in Oracle Data Integrator to prepare your external data for loading and importing. Oracle Enterprise Repository for Oracle Fusion Applications includes three types of XML templates that you import as target models in your Oracle Data Integrator repository.

Oracle Enterprise Repository includes these three levels of XML files:

• Family-level
• Product-level
• Product

Family-Level XML Files

A family-level XML file is common to a group of product-level model folders and product models.

Consider the following points when you use family-level XML files:

• The family-level XML file supports all of the Oracle Enterprise Repository assets in the family, for example Oracle Fusion Financials or Human Capital Management.
• You import the family-level XML file into your Oracle Data Integrator repository prior to importing the other XML files.
• You import one family-level XML file as a model folder for each family of products.
• You import each family-level XML file as a top-level model folder.
• You import the family-level XML file one time; it supports all subsumed product-level model folders.
• You select Synonym mode Insert Update as the import type.

**Product-Level XML Files**

A product-level XML file is common to a group of product models.

Consider the following points when you use product-level XML files:

• The product-level XML file supports all of the Oracle Enterprise Repository assets in the product line, for example Fixed Assets, General Ledger, or Payables.
• You import one product-level XML file as a model folder for each line of products.
• You import the product-level XML file as a model folder into your Oracle Data Integrator repository after you import the family-level XML file, but before you import product XML files.
• You import each product-level XML file as a midlevel model folder within the appropriate family-level model folder.
• You import the product-level XML file one time; it supports all subsumed product models.
• You select Synonym mode Insert Update as the import type.

**Product XML Files**

A product XML file represents a specific Oracle Enterprise Repository interface table asset.

Consider the following points when you use product XML files:

• You import one product XML file as a model for each interface table or set of tables, for example Mass Additions.
• You import the product XML file as a model into your Oracle Data Integrator repository after you import the product-level XML file.
• You import each product XML file as a model within the appropriate product-level model folder.
• You import each product XML file one time.
• You select Synonym mode Insert Update as the import type.
• The model is based on File technology.
• After you import the product model, you connect the model to the correct logical schema.
Transferring Data Files to Target Accounts in Oracle WebCenter Content: Explained

After you generate the ZIP file that contains the CSV data import file, transfer it to the content repository.

Use any of these methods to transfer file:
- File Import and Export page in Oracle Fusion Applications
- Oracle WebCenter Content Document Transfer Utility
- Oracle Fusion Financials Utility web service

**Note**
Consult Oracle Enterprise Repository for Oracle Fusion Applications for web service documentation.

Aspects of transferring data files to content management involve the following:
- Target accounts
- Accessing transferred content

**Target Accounts**
You must transfer files to these predefined account in content management that corresponds to the interface table or assets.

<table>
<thead>
<tr>
<th>Interface Table</th>
<th>Predefined Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payables Standard Invoice Import</td>
<td>fin/payables/import</td>
</tr>
<tr>
<td>• AutoInvoice Import</td>
<td>fin/payables/import</td>
</tr>
<tr>
<td>• Receivables Standard Receipt Import</td>
<td>fin/receivables/import</td>
</tr>
<tr>
<td>• Customer Import</td>
<td>fin/receivables/import</td>
</tr>
<tr>
<td>• China Value Added Tax Invoice Import</td>
<td>fin/receivables/import</td>
</tr>
<tr>
<td>• BAI2 Format Bank Statements Import</td>
<td>fin/cashManagement/import</td>
</tr>
<tr>
<td>• EDIFACT FINSTA Format Bank Statements Import</td>
<td>fin/cashManagement/import</td>
</tr>
<tr>
<td>• ISO200022 CAMT053 Format Bank Statements Import</td>
<td>fin/cashManagement/import</td>
</tr>
<tr>
<td>• SWIFT MT940 Format Bank Statements Import</td>
<td>fin/cashManagement/import</td>
</tr>
<tr>
<td>• Fixed Asset Mass Additions Import</td>
<td>fin/assets/import</td>
</tr>
<tr>
<td>• Fixed Asset Mass Adjustments Import</td>
<td>fin/assets/import</td>
</tr>
<tr>
<td>• Fixed Asset Mass Retirements Import</td>
<td>fin/assets/import</td>
</tr>
<tr>
<td>• Fixed Asset Mass Transfers Import</td>
<td>fin/assets/import</td>
</tr>
<tr>
<td>• Fixed Asset Units of Production Import</td>
<td>fin/assets/import</td>
</tr>
<tr>
<td>Intercompany Transaction Import</td>
<td>fin/intercompany/import</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>- Journal Import</td>
<td>fin/generalLedger/import</td>
</tr>
<tr>
<td>- Chart Of Accounts Segment Values and Hierarchies Import</td>
<td></td>
</tr>
<tr>
<td>General Ledger Budget Balance Import</td>
<td>fin/budgetBalance/import</td>
</tr>
<tr>
<td>Supplier Bank Account Import</td>
<td>fin/payables/import</td>
</tr>
<tr>
<td>Tax Configuration Content Import</td>
<td>fin/tax/import</td>
</tr>
<tr>
<td>Import Blanket Purchase Agreements</td>
<td>prc/blacketPurchaseAgreement/import</td>
</tr>
<tr>
<td>Import Contract Purchase Agreements</td>
<td>prc/contractPurchaseAgreement/import</td>
</tr>
<tr>
<td>Import Purchase Orders</td>
<td>prc/purchaseOrder/import</td>
</tr>
<tr>
<td>Import Requisitions</td>
<td>prc/requisition/import</td>
</tr>
<tr>
<td>- Import Suppliers</td>
<td>prc/supplier/import</td>
</tr>
<tr>
<td>- Import Supplier Sites</td>
<td></td>
</tr>
<tr>
<td>- Import Supplier Site Contacts</td>
<td></td>
</tr>
<tr>
<td>- Import Supplier Site Assignments</td>
<td></td>
</tr>
<tr>
<td>Project Enterprise Resource Import</td>
<td>prj/projectManagement/import</td>
</tr>
<tr>
<td>Project Unprocessed Expenditure Item Import</td>
<td>prj/projectCosting/import</td>
</tr>
<tr>
<td>Cycle Count Import</td>
<td>scm/cycleCount/import</td>
</tr>
<tr>
<td>Inventory Reservation Import</td>
<td>scm/inventoryReservation/import</td>
</tr>
<tr>
<td>Inventory Transaction Import</td>
<td>scm/inventoryTransaction/import</td>
</tr>
<tr>
<td>Item Import</td>
<td>scm/item/import</td>
</tr>
<tr>
<td>Receiving Receipt Import</td>
<td>scm/receivingReceipt/import</td>
</tr>
<tr>
<td>Shipment Request Import</td>
<td>scm/shipmentRequest/import</td>
</tr>
</tbody>
</table>

You can create subaccounts to further organize your files. However, you must create the account subordinate to the predefined account for the asset you are integrating.

**Accessing Transferred Content**

To access your transferred data you must access the account that corresponds to the interface table or asset appropriate for the data.

Available data integration processes move the content into and out of Oracle Fusion Applications tables. Running an import or export process creates a process ID in content management that you can use to identify the content you wish to overwrite or extract.

Oracle Enterprise Scheduler import process jobs result in the following hierarchy of items in Oracle WebCenter Content:

- A root import job is a list of all unprocessed files in an account. This job submits the child jobs that process each unprocessed file.
- A parent import job is a single file ID, account name, and the import steps (download, extract, import) for a single job, job set, or subrequests. This
type of job tags the file with its request ID, provided the file is not deleted immediately after successful import.

- A child import job is a direct data load from a prepared file, typically a SQLLoader. Typically, the parent import job submits this job.

**Load Interface File for Import Process**

Use to load external setup or transaction data from a data file in the content repository to interface tables. The process prepares the data for import into application tables.

You run this process from the Scheduled Processes page. You can run it on a recurring basis.

Before running this process, you must:

1. Prepare your data file.
2. Transfer the data file to the content repository.

**Parameters**

**Import Process**

Select the target import process.

**Data file**

Enter the relative path and the file name of the *.zip data file in the content repository.

**Importing Data into Application Tables: Procedure**

The final destination for your external data is the application data tables of your Oracle Fusion Applications product.

Aspects of importing data into application tables involve the following:

- Loading data into interface tables
- Finding and submitting the import process

**Loading Data into Interface Tables**

Interface tables are intermediary tables that store your data temporarily while the system validates format and structure. Run the Load Interface File for Import scheduled process to load data from the data file into the interface table that corresponds to the template that you use to prepare the data.

To load your data into interface tables, submit the Load Interface File for Import scheduled process:
1. Sign in to Oracle Fusion Applications.
2. In the Navigator menu, select Tools, Scheduled Processes
3. Click the Schedule New Process button.
4. Search and select the Load Interface File for Import job.
5. When the Process Details page appears:
   a. Select the target import process.
   b. Enter the data file name.

Note
If the file exists in an account subordinate to the predefined account, you must enter the entire path relative to the predefined account in the content repository. Include all subaccounts and the file name.

6. Submit the process.
   If no errors exist in the data file, then the process populates the interface tables.

Note
The data file remains in the content repository after the process ends.

Finding and Submitting the Import Process

Run the appropriate import process to import the data into the interface tables of your Oracle Fusion Applications product.

To import your data:
1. Sign in to Oracle Fusion Applications.
2. In the Navigator menu, select Tools, Scheduled Processes
3. Click the Schedule New Process button.
4. Find and select the import process that is specific to the target application tables.
5. When the Process Details page appears, select the process that corresponds to the data that you are importing.
   If you prepared your data using the spreadsheet template, select the process named in the Overview section of the spreadsheet.
6. Submit the process.

Note
For more detailed information on the process used for data prepared using the spreadsheet template, see the Instructions and CSV Generation tab of the spreadsheet template.
Correcting Import Load Process Errors: Explained

The Load Interface File for Import process ends in error if the load of the data file fails on any row.

The following conditions apply when the process ends in error:

- The Load File to Interface child process ends in either warning or error.
- All rows that were loaded by the process are deleted, even those rows that loaded successfully.

To correct errors:

1. Review the error logs.
2. Change any formatting or structural anomalies that exist in the data.
3. Recreate the CSV and ZIP files.
4. Transfer the file to the content management server.
5. Submit the Load Interface File for Import job.
6. Repeat these steps until the process successfully loads the data.
7. Import the data using the appropriate product-specific process.
absence category
A group of related absence types for reporting purposes.

absence pattern
Predefined rules related to common usages of absences that you must use as a starting point to create an absence type.

absence plan
A benefit that entitles workers to accrue time for the purpose of taking leave and receiving payments during absence periods.

absence reason
A specific cause of absence, which can be selected during absence recording.

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 absence plan
A benefit that entitles workers 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 Middleware Extensions for Applications. The technical product code is FND.

**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.

batch loader
An integrated Microsoft Excel workbook loader that helps you enter data more easily into HCM tables; used for entering balance, balance group, element, element entry, payroll definition, personal payment method, bank information for EFT payments, formula global values, and object group data.

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 card**
Captures values required for payroll calculations, in areas including absences, statutory deductions, time and labor, benefits and pensions, and involuntary deductions. Calculation cards hold values for a payroll relationship. For some types of cards and some legislations, you can also create cards for a tax reporting unit or payroll statutory unit.

**calculation component**
An individual calculation captured on a calculation card. Typically, a calculation component is associated with an element.

**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.

**calculation value definition**
The rates, amounts, or rules associated with payroll and calculation components that are used for calculations within a payroll run.

**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 group
A grouping of deduction cards for year-end processing.

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.
**effective start date**

For a date-effective object, such as a location or grade, the start date of a particular physical record in the object’s history. Each physical record has effective start and end dates, between which the physical record is available to transactions.

**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. Depending on the element classifications selected, it also creates the required calculation components.

**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 let you group 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.

**globals**
Used to store values that are constant over a period of time and may be referenced in several formulas. For example, the name of a rate, a specific date, or a company term.

**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.

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
Abbreviation for human resource.

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.

import
In the context of data integration, the transfer of data from interface tables to application tables, where the data is available to application users.
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


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.
**load**

In the context of data integration, the transfer of external data from data files to the receiving **interface tables** in preparation for an import into application tables.

**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.

**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 Oracle Sales Cloud 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**
Ratings, comments, and responses to a questionnaire about the performance of a worker provided by people other than the worker or a manager of the worker in a 360 evaluation. The ratings and comments can be provided on competencies, goals, and overall performance of the worker in the performance document. The questionnaire is also part of the performance document.

**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 cost account used to cost an element eligibility record. When calculating payroll costs, the application bypasses the standard costing process and only uses the number entered for the priority account. If only a percentage of the cost is allocated to a priority account, the account number for the remaining percentage is derived 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, Do not process, Process when earning, and Process nonrecurring element entry.

**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.

qualification absence plan
A benefit that entitles workers to paid leave time as a result of an event, such as childbirth, illness, or injury.

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.

**resource**
People designated as able to be assigned to work objects, for example, service agents, sales managers, or partner contacts. A sales manager and partner contact can be assigned to work on a lead or opportunity. A service agent can be assigned to a service request.

**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 run time 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, and payroll flows.

**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.

**segment**

See

**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.

system person type
The type used to classify the person at the system level in human resources. For example, the system person type can be either employee or contingent worker. In human resources, user-defined person types are associated with system person types.

talent review
A meeting or series of meetings in which managers analyze organizational trends and potential areas of risk for the company, calibrate performance and potential ratings across the organizational hierarchy, review compensation, and discuss leadership development and succession planning. Depending on configuration, managers can also assign goals to workers.

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.
time card field
A collection of properties that specify how a time attribute must be displayed in the time card.

time category
A classification of time entries of the same type such as worked time or vacation time that can be referenced in rules, time summaries, and analytics.

time consumer
An application that uses calculated data for processing. For example, payroll processing uses reported time to determine the amount to pay workers.

time consumer set
A set of applications that use reported time for different processing requirements. For example, a time consumer set contains two time consumers: payroll and projects. Time consumer payroll uses the reported time to determine how much to pay employees and the time consumer project uses the reported time for billing customers for time worked against a given project.

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.

treeNode
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 time entry profile
A collection of layout specifications that determine the appearance of the time card and rules that control when workers can take action on their time card.

worker time processing profile
A collection of the time card period and the time entry and time calculation rule sets for both the worker and the time consumer.
**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.

**XML**

Abbreviation for eXtensible markup language.

**XML filter**

A type of condition using XML to constrain the data secured by a data security policy.